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LEPIDOPTERA PHALÆNÆ

IN THE

BRITISH MUSEUM.

VOLUME I.

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CATALOGUE

OF THE

SYNTOMIDÆ

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BY

SIR GEORGE F. HAMPSON, BART.

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PREFACE.

As the whole scheme and scope of the work of which the present volume is the first instalment is fully explained in the Introduction, very little is required from me by way of preface.

It may be easily understood that the publication of a monograph of a group like the *Lepidoptera Phalænæ*, containing such an enormous number of species, already known, or likely to be discovered during the progress of the work, is an undertaking of very considerable magnitude, but it is one which, if successfully accomplished, will be of proportionate value to the systematic zoologist.

The Trustees of the British Museum believe that the work has been undertaken under conditions which are as favourable as possible. The author, Sir George Hampson, has already shown, in his 'Handbook of the Moths of British India,' his capacity for treating the subject in a manner likely to produce confidence in his methods; he has under his hands in the Museum a collection already of exceptional richness, and rapidly increasing, and, what is of the greatest importance, he is in friendly relations with all the other workers at the group in various parts of the world.

The strict regulation of the British Museum which does not allow of unique specimens being under any circumstances sent away from the establishment, though on the whole salutary as regards the preservation and ultimate accessibility of type specimens, has undoubtedly its disadvantages in relation to the interchange of facilities for examination; but it is gratifying to be able to report to how great an extent these disadvantages have been overcome, thanks to the courtesy of so many entomologists which it is now my privilege to acknowledge.

Owing to the kind way in which everyone appealed to has responded to the request for assistance, and the great amount of trouble they have been willing to take in forwarding material from their collections required for examination, a very large proportion of types of the species described have been examined whilst preparing the volume, as will be seen by looking through the text.

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The British Museum Collection is now very rich in species of *Syntomidæ*, a large number of them having been added during the past year, notably the Godman-Salvin Collection, from Central America, of this and other families, which has now been handed over to the Museum. The whole of the species of *Syntomidæ* in Dr. Staudinger's magnificent collection have been submitted for examination, and an opportunity of acquiring specimens of most of the species has been afforded us.

From the Neotropical region Mr. W. Schaus has presented many species and submitted all his types; whilst Mr. Herbert Druce and M. Paul Dognin of Paris have lent all their types for examination and description, as also has Prof. Poulton the types described by F. Walker which are in the Oxford Museum.

From the Æthiopian region Dr. W. J. Holland, D.D., of Pennsylvania, has lent all the types described by him from W. Africa, and presented co-types of many of them to the Museum; and from S. Africa the collections of Mr. G. A. K. Marshall and Miss F. Barrett have provided specimens of most of the species occurring in that subregion; whilst Prof. Aurivillius, of Stockholm, has lent the types described by Wallengren, M. Paul Mabille has submitted the types of species described by him from Africa and Madagascar, and Dr. H. Lenz of Lübeck and Dr. von Heyden of Frankfort those described by Saalmüller.

From the Oriental region the collections of Mr. J. H. Leech, from Japan and China, have been examined, also those of Mr. H. J. Elwes from India, and specimens of many of them have been presented by the latter, as well as of many species collected by Mr. W. Doherty in the Malayan subregion. The Curator of the Devon and Exeter Museum has sent the few species described by F. Walker the types of which are in that Museum, and Dr. R. Gestro, of Genoa, the species collected by Fea in Burma. From various parts of the Malayan subregion we have received large collections made by Mr. Doherty, Herr P. C. T. Snellen has lent the types of his species, Herr Frühstorfer of Berlin has presented specimens of the species taken by himself in Java and Celebes, as well as many from Brazil, and Herr F. Röber, of Dresden, has lent or presented specimens of the Malayan species described by himself.

From the Australian region, Mr. E. Meyrick has lent us the types of his species from New Guinea and Australia which are in his collection, and the Trustees of the Macleay Museum others which are at Sydney.

Lastly the Hon. Walter Rothschild has lent all the types described by Felder in the 'Reise Novara' which are in his immense collection, and has placed all the rest of his material at our disposal for examination.

Prof. Harrison G. Dyar, of the United States National Museum, Washington, and Dr. T. A. C. Chapman, have very kindly looked over the parts of the Introduction relating to the early stages of the *Lepidoptera*, of which they have made a special study, and have made many suggestions and corrections which have been of the greatest possible value.

Dr. A. G. Butler has given the author the advantage of his assistance in revising the proof-sheets.

As the coloured illustrations of new or hitherto inadequately figured species, though of the greatest value to the progress of zoology, are not essential to the plan of the work, and if incorporated would have added greatly to its cost, it has been thought best to issue them separately, and to produce the text alone at a price which may make it readily accessible to all working entomologists.

W. H. FLOWER,

Director.

British Museum (Natural History),
30th September, 1898.

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CATALOGUE

OF

LEPIDOPTERA PHALÆNÆ.

◆

INTRODUCTION.

The *Lepidoptera*, consisting of the Butterflies, *Papiliones*, and Moths, *Phalænæ*, to revert to the original terms given to them by Linnæus [*], are for the most part easily distinguished from all other insects by :—(1) The maxiliæ being channelled and conjoined to form a tubular proboscis, which, however, is often more or less aborted or entirely absent in such groups as the *Hepialidæ*, *Psychidæ*, *Saturniadæ*, and some *Sesiadæ*, *Pyralidæ*, etc. (2) By the mandibles being obsolete, except in the ancestral family *Micropterygidæ*, where in the genus *Eriocephala* they are functionally active. (3) By the very largely developed clypeus or frons forming the whole front of the head. (4) By the broad, regularly veined wings clothed with minute scales which are modified hairs, all the gradations between the extreme forms of hairs and scales being often observable in the same insect: some *Lepidoptera*, however, appear to be hyaline and devoid of scales, either by the scales falling off after development or by being so reduced in size as to become microscopic; whilst the females of *Psychidæ* and some *Lymantriadæ*, *Geometridæ*, and *Tineidæ* have the wings more or less aborted.

The *Lepidoptera*, after leaving the egg, pass through three well-defined stages of development and changes in structure and habit—(1) The larva, whose function is growth; (2) the pupa, whose function is maturation; and (3) the imago, whose function is reproduction [†].

---

[*] Strictly speaking, the *Phalænæ* are the *Phalænæ* of Linnæus plus his *Sphinges*.

[†] E. Meyrick, 'Introduction to Handbook of British Lepidoptera.' Macmillan, 1895.

THE OVUM.

The ovum or egg is more or less globular, usually with a sculptured surface; the colour changing considerably during the process of development. There are two types of egg found in the *Lepidoptera* * :—(1) The upright egg with the micropyle at the top, found in the *Syntomidæ*, *Arctiadæ*, *Noctuidæ*, *Lymantriadæ*, *Hypsidæ*, *Notodontidæ*, *Cossidæ*, *Castniadæ*, and probably the small families derived from them, and in the *Papiliones*. (2) The flat egg with the micropyle at one end, to which group all the other families belong. The groups with upright eggs arose from the ancestral flat-egg forms at several different points, and it will be noticed in the phylogeny of the families that the only family with upright eggs placed as giving rise to families with flat eggs is the *Notodontidæ*. It is, however, from ancestors of the present forms that the families were derived, and probably the *Notodontidæ* either still include among their lower forms, or did so prior to the origin of the *Cymatophoridæ* and *Sphingidæ*, forms with flat eggs that would still come within the definition of the family.

THE LARVA.

The larvæ of *Lepidoptera* are essentially phytophagous, but in the family *Pyralidæ* an Australian Gallerid eats its way into and preys upon the larvæ of one of the large green species of *Hepialus*, and several species of Phycids and Noctuids of the genus *Eublemma* live on Coccids, a Lycænid on Aphids, and some *Tineidæ* on such substances as hair and horn.

The larvæ are usually cylindrical and elongate, but shorter and broader in the *Lycænidæ*, *Zygænidæ*, and *Megalopygidæ*, most modified in the *Limacodidæ*. They consist of: (1) A head furnished with strongly developed mandibles, simple eyes, antennæ which are usually rudimentary but developed in *Eriocephala*, and usually have a spinneret below the mouth, from which silk is produced. (2) Thirteen somites, occasionally divided by transverse furrows into two to eight annulets: of these, three are thoracic, each bearing a pair of jointed corneous legs, and the 1st somite a lateral spiracle, and the other ten abdominal, the 1st eight with a spiracle, the last two without spiracles and almost completely fused, usually scarcely separable in the higher families. Somites 6–9 and 13 bear the paired sucker-like prolegs, furnished, except in a few cases, at extremity with minute hooks, which form a complete circle in the generalized forms with incomplete pupæ, and are present on outer side only in the more specialized *Obtectæ*. In certain families, as in nearly all *Geometridæ*, many *Noctuidæ* and *Nolinæ*, some of the prolegs are absent; in the *Megalopygidæ* they coexist with a series of sucker-like pads on somites 5–10, whilst in the *Limacodidæ* they are replaced by sucker-like structures on somites 4–11. In the ancestral *Eriocephala* † there are eight pairs of prolegs, and a ventral trefoil-shaped sucker on the 9th and 10th abdominal somites. *Micropteryx* and some other specialized larvæ are without prolegs.

---

* Dr. T. A. D. Chapman, Trans. Ent. Soc. 1896, pp. 567–587.

† Id., Trans. Ent. Soc. 1894, p. 335.

The larvæ periodically cast their skins, the number of moults varying from three to ten in different species, and also varying in the same species under different conditions.

The somites bear series of tubercles *, from which single hairs or tufts of hair arise: occasionally these are very small and inconspicuous, or they may be obscured by a general coating of hair spread all over the body; usually they are distinct and of a definite number. On somite 1 rise hairs from either half of the cervical shield, a prespiracular tubercle with three hairs, and a subspiracular tubercle with one or two hairs: on somites 2 and 3 a subdorsal tubercle, i, with two hairs; ii with ten hairs, often separated; iii, iv, & v in line on the side, iv and v being conjoined; vi subspiracular, with one or two hairs: on the abdomen i, ii, iii are above the spiracle, iv & v near or below it, vi above the leg, vii on base of leg with three hairs and forming the leg-shield, viii on the inside of the leg. On the conjoined 12th and 13th somites the tubercles are somewhat reduced.

In the first stage the tubercles are in a generalized condition—tubercles iii & iv of thorax and vi of abdomen being absent; these tubercles, therefore, are not primary ones, and they are not developed in any stage of the *Papiliones*, *Saturniadæ*, or *Sphingidæ*, or in certain specialized leaf-mining *Tineidæ*. In the divergent *Hepialidæ* they are represented by a different set of subprimary tubercles. In some cases the primitive first stage is absent, and the tubercles are alike in all the stages. The position of the several tubercles varies a little in different families, the change being most marked in the position of tubercle iv of abdomen, which is separate from v, but in line with it in the lowest larvæ, and moved up behind the spiracle in the *Noctuidæ*, etc. In the higher *Tineidæ* and *Pyralidæ* it becomes joined to v, and in the *Sphingidæ* v is moved up in front of the spiracle.

The tubercles may be hypertrophied into horn-like structures and the hairs variously modified, such as the stinging spines of the *Limacodidæ* and the club-shaped appendages of *Eriocephala*.

THE COCOON.

The larva when full-fed forms, for its own protection during the helpless pupa stage, a cocoon composed usually of silk mixed with its own hair, portions of the food-plant, fæces, earth, or similar substances; in some *Syntomidæ* and *Arctiadæ* of hair only without silk; or, in the case of the carnivorous forms, of the skins of its victims.

In some of the more specialized families, however, no cocoon is formed, the pupa being suspended by silk from the extremity of the abdomen, or supported in an upright attitude by a cremaster or silken cable passed round it and attached to contiguous objects, as in various groups of *Papiliones*; or, in many *Noctuidæ*, *Ceratocampidæ*, etc., simply buried in the earth.

---

* G. Harrison Dyar, Ann. N.Y. Acad. Sci. viii. p. 194 (1894).

THE PUPA.

Having formed its cocoon, the larva turns to a pupa, during which stage in some *Diptera* almost the whole of the tissues of the body undergo degeneration into a liquid fatty substance within the outer cuticle, except the nerve centres and some bodies attached to them known as the "imaginal disks," which are the rudiments of the future body, wings, and legs, and which by absorption of the products of the degenerated tissues gradually grow and build up the imago till ready to emerge from the pupa skin. In the *Lepidoptera*, however, this process is not carried nearly so far; the dorsal vessel and its muscles, some skin muscles, the tracheal system, and the alimentary canal of the larva are persistent, and the mouth-parts, antennæ, and legs of the imago are modified and developed from those of the larva: the process, in fact, resolving itself into the imaginal structures not present in the larva being developed from disks, whilst the larval structures not present in the imago undergo degeneration.

The various parts of the pupal skin are all soldered together and immovable, except certain of the abdominal somites, but the head with the cases for the proboscis and antennæ, the thorax with the wing- and leg-cases, and the abdominal somites can be easily distinguished.

EMERGENCE FROM COCOON.

In the orders of insects of which the imagines are provided with jaws, these are used to help them to force their way through the cocoon, and *Eriocephala* being provided with functional jaws probably uses them for the same purpose. The evolution of the haustellate *Lepidoptera* resolves itself into the solution in various ways of the problem of freeing themselves from the cocoon without jaws *. In this respect the families fall into two main divisions †:—(1) The *Incompletæ*, with the 7th abdominal segment free in the male, fixed in the female, the moth emerging from the cocoon clothed in the effete pupal skin; of these *Micropteryx* ‡ uses the jaws of the pupal skin to rupture the cocoon and to pass through it and overlying earth, motion being induced in them by vermicular movements of the pupa. In all other Lepidoptera the pupal jaws are functionally obsolete, accompanied by considerable consolidation of the previously movable parts, and a roughening of the dorsum

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* Dr. T. A. D. Chapman, Trans. Ent. Soc. 1896, pp. 567–587.

† Id., Trans. Ent. Soc. 1893, pp. 97–119.

‡ Id., Trans. Ent. Soc. 1893, pp. 255–265.

of the abdomen. In the *Limacodidæ* the abdominal segments are all free, and the cocoon is provided with an easily movable lid. In *Adela* and its allies the pupa is furnished with a beak, which the moth uses to emerge from its cocoon which is formed of a valved larval case. In these lower forms the cremaster or silken girdle round the pupa is rare, and it seems to be used to restrain the effete pupal case when far enough through the cocoon, which is effected in most cases by the elastic cocoon firmly holding the pupal skin.

(2) The *Obtectæ*, comprising all the higher forms, with the 5th and 6th abdominal segments free and the moth emerging from the cocoon, leaving the pupal skin retained within it by the cremaster; the only intermediate case between the two groups which is known being *Epermenia*, which, though it has an incomplete pupa, leaves it within the cocoon on dehiscence.

Among the *Obtectæ* there are many devices for breaking through the cocoon, such as specially constructed weak places in the cocoon; a softening fluid applied by the mouth assisted by special appliances, such as the corneous frontal process of some *Pyralidæ* and *Noctuidæ*, etc., the spines at end of fore tibiæ of many *Noctuidæ*, the shoulder-spines of *Attacus*, etc. In the *Papiliones*, which have dispensed entirely with the cocoon, certain genera in each family have lost the power of movement in one or both segments of the abdomen that are free in the rest of the *Obtectæ*; and the number and position of the free segments in the different groups of *Lepidoptera* seem to be simply correlated with the problem of most effective leverage for the various methods of emergence from the cocoon, the power of movement, however, in any segment being never reacquired when once lost.

THE IMAGO.

The imago or perfect insect emerges from the cocoon with its wings in a dwarfed and crumpled condition; they, however, rapidly expand and dry, the muscles being usually stimulated by vibration in the air, probably as a help to the circulation and oxygenisation of the blood-plasma.

A Lepidopterous insect consists of (1) the head, (2) the thorax, and (3) the abdomen. The head consists of three pieces: the occiput, lying behind the ocelli; the epicranium behind the antennæ, bearing the ocelli or simple eyes, which, however, are often absent, and the large compound eyes made up of a large number of simple lenses; thirdly the clypeus or frons, occupying the whole front of the head, with the triangular mandibulate areas at each side. The labrum is very minute and concealed by the clypeus, its lateral processes, called piliger, being visible and a triangular medial part, which may, however, be the epipharynx; the labium is small, short, and triangular; the mentum nearly obsolete; the lingua is obsolete, its place being supplied by the maxillæ, which form a long, grooved proboscis.

In *Eriocephala* functional toothed mandibles are present, in

Micropteryx they are non-denticulate and functionless, and in the higher forms rudimentary. In *Eriocephala* the free palpi and typical ligula of the mandibulate insects are present, the ligula being formed by the fusion of the inner palps into a short tubule open externally, a short hypopharynx being present on its inner wall.

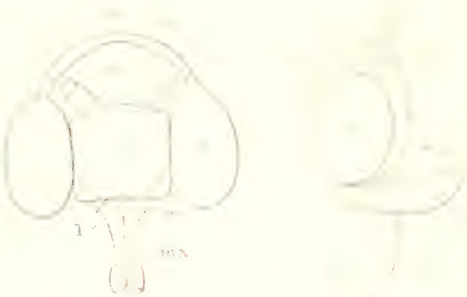

Fig. 1.—Head of a Lepidopterous insect from above and from the side. (From Packard's Guide, p. 232.)

at.	Antennæ.	*ep.*	Epicranium.
c.	Clypeus.	*oc.*	Occiput.
e.	Eye.	*p.*	Piliger part of labrum.
l.	? Labrum or epipharynx.	*mx.*	Proboscis.
m.p.	Maxillary palpi.	*l.p.*	Labial palpi.
o.	Ocellus.		

The maxillary palpi, obsolete in some species, are from 1- to 6-jointed in those that possess them. The *Micropterygidæ* have the largest number of joints, six; in the *Tineidæ* and *Tortricidæ* the number is very variable; in the *Pyralidæ* four; in the *Noctuidæ* generally two, but sometimes three; in the more specialized families one or two; and in the *Papiliones*, *Sphingidæ*, and most *Geometridæ* one *. The cases of the maxillary palpi in the pupæ are well developed in the generalized families, the *Tineidæ*, *Sesiidæ*, *Cossidæ*, and *Limacodidæ*, even when they are aborted in the imago; in the *Pyralidæ* and *Zygænidæ* they are less conspicuous, and in the more specialized *Obtecta* wanting †.

The labial palpi are normally well developed and 3-jointed, but aborted or much reduced in the *Hepialidæ*, *Psychidæ*, and many *Cossidæ*; they may be upturned, with the 2nd joint curved, straight and oblique or porrect, or downcurved: they vary much in form and scaling, the male often having extremely specialized developments, but their function beyond that of protecting and cleaning the proboscis is unknown.

The antennæ are sense-organs composed of an indefinite number of joints and varying much in length and structure; they are either (1) filiform, (2) fusiform, or (3) dilate, and are rarely simple, but usually (1) ciliated, (2) with paired bristles at each joint, (3) with both cilia and bristles, (4) fasciculate, (5) dentate, (6) lamellate, (7) serrate, or (8) pectinate with single or paired branches, rarely with two pairs of branches to each joint; they may also be pubescent all over, or have long scales on the upperside, or be furnished with special secondary sexual characters, such as notches, thickenings, sinuations, or tufts of scales.

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* A. Walter, Jena. Zeit. Nat. xviii. pp. 121–173 (1884); id. Jena. Ges. 1885. pp. 19–27.

† Dr. T. A. D. Chapman, Trans. Ent. Soc. 1893, pp. 105–7.

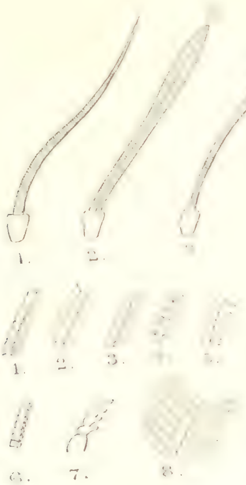

Fig. 2.—Antennæ of Moths. (From Moths of India, vol. i.)

The thorax consists of three segments—the prothorax, bearing the tegulæ or collar-lappets, the patagia or shoulder-lappets, and the fore legs; the mesothorax, bearing the mid legs and fore wings; and the metathorax, the hind legs and hind wings.

The abdomen consists of nine segments, the terminal segments being often much modified and little recognizable; at its base are a lateral pair of large tracheal stigmata, those on the other segments being small, and at its extremity the anal tuft covering the orifice within which are concealed the genital organs, consisting in the male of paired lateral claspers and a medial curved upper process—the uncus; these vary extremely in form in closely allied species, with the object probably of preventing hybridization; they are often useful, and generally reliable as a point of distinction between closely allied species, but have been insufficiently studied in most groups of *Lepidoptera*; they are often accompanied by a scent-producing genital tuft.

The legs consist of (1) coxa, (2) trochanter, (3) femur, (4) tibia, (5) the 5-jointed tarsus bearing the ungues and pulvillus. The fore tibiæ have a medial spine-like process, which in many *Psychidæ* is long and arises from the femoro-tibial joint; the mid tibiæ are usually provided with a terminal pair of spurs, and the hind tibiæ with medial and terminal pairs; the tarsi usually, and the tibiæ often, are more or less spinous, and the fore tibiæ sometimes bear a curved terminal hook; in the male the mid or hind tibiæ often have a scent-brush contained in a groove.

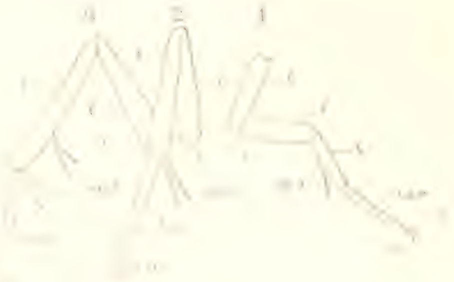

Fig. 3. Legs of Moths. (From Packard's Guide, p. 231.)

1. Fore leg. 2. Mid leg. 3. Hind leg.

c. Coxa.
t. Trochanter.
f. Femur.
t. Tibia.
tar. Tarsus.
u. Ungues.
p. Pulvillus.
sp. 1. Single anterior spur.
sp. 2. Paired medial spurs.
sp. 3. Two pairs of posterior spurs.

The wings consist of two closely applied laminæ of membrane covered with scales or hairs which have their bases inserted in a series of pits and overlap one another like tiles. The membrane is traversed by a series of veins, which are tubular blood-vessels containing nerves and tracheæ.

The fore wing typically has 12 veins—the internal nervure with three branches (1 *a*, *b*, *c*), 1 *a* being short and often forming a fork at the base of 1 *b*, and 1 *c* usually obsolete; the median nervure with its two branches (2, 3); the radial nervure with three branches (4, 5, 6); the subcostal nervure with five branches (7, 8, 9, 10, 11); and the costal nervure (12) *.

The hind wing has twelve veins, as in the fore wing, in the *Micropterygidæ* and *Hepialidæ*, the extra veins being numbered 7 *a*, *b*, *c*, *d*; in all the other families typically eight veins, the difference from the fore wing consisting in the absence of four of the subcostals, but one of them is probably represented by the bar between veins 7 and 8 found in the *Lymantriadæ*, *Sphingidæ*, *Eupterotidæ*, etc. †; almost any of the veins may be either aborted or coincident with other veins. Beside the true veins, cross veins between other veins, or veinlets between the costal nervure and

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* The American system of nomenclature for the median, radial, and subcostal nervures is respectively the cubitus, media, and radius.

† In a specimen of the Pyralid subfamily *Epipaschianæ*, the bar which is present on one side of the insect is represented on the other by a complete extra vein.

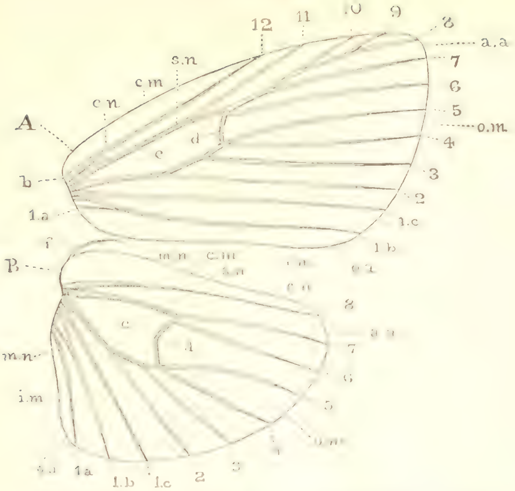

Fig. 4.—A. Fore wing. B. Hind wing. (From Moths of India, vol. i.)

c.m. Costal margin.
o.m. Outer margin or termen.
i.m. Inner margin.
a.a. Apex.
o.a. Outer angle or tornus.
c. Discoidal cell.
d. Discocellulars.

c.n. Costal nervure, vein 12 of fore wing, 8 of hind wing.
s.n. Subcostal nervure.
m.n. Median nervure.
1 *a, b, c.* Three branches of internal nervure.
2, 3. Two branches of median nervure.
4, 5, 6. Three branches of radial nervure.
7, 8, 9, 10, 11. Five subcostal branches of fore wing.
7. Subcostal nervure of hind wing.

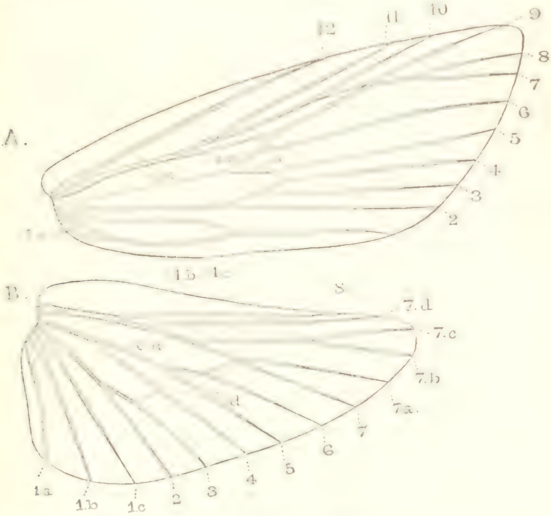

Fig. 5. (From Moths of India, vol. i.)

A. Fore wing of *Cossid.*
c.n. Veinlet in cell, the fork of which forms the discocellulars *d.*
s.n. Stalk of veins 9, 10; 9 anastomosing with 7 and 8 to form the areole.

B. Hind wing of a *Hepialid.*
7 *a, b, c, d.* Five subcostal nervules.

costa or vein 1 and inner margin may be present. The present form of neuration arose from a system of simple longitudinal veins, which by the union of their basal portions formed the present branching system; thus the discocellulars which close the cell of each wing were formed by the junction of the basal portions of the three radial veins, the basal stem being then aborted, leaving only an outwardly-directed trifid fork of which the radials are the extremities. The whole process in its various stages may be clearly seen in such generalized forms as the *Cossidæ*, *Psychidæ*, and *Zygænidæ*; and the neuration of the extinct ancestor of the *Lepidoptera* must have consisted of at least fifteen simple longitudinal veins in each wing, and probably more, as in several groups vein 1 *b* of the hind wing is forked at base. Vein 4, the lowest radial, has become permanently connected with the two-branched median nervure *, and vein 6, almost without exception, with the five-branched subcostal nervure; but the position of vein 5 differs much in the several groups of families, according to whether it retains its original medial position or is attracted towards the median or subcostal systems.

The fore and hind wings in the majority of families of Moths are connected by the "frenulum" developed from hairs arising from the base of the costa of hind wing and fitting into the "retinaculum" on the fore wing, which consists of a fold from the underside of the costa, a membranous hook, or tuft of hair arising from the costal nervure, or a tuft of hair arising from the median nervure or rarely from the wing-membrane below it. The form of the frenulum is of great use in determining sex, as in the males of all the forms that possess it, it consists of hairs firmly soldered together so as to form a single bristle, articulating with the retinaculum arising from the costal nervure, whilst in the female it consists of three or more bristles (in a Cossid I have found as many as nine) articulating with the retinaculum arising from the median nervure. In the

Fig. 6.—1. ♂. 2. ♀. (From Moths of India, vol. i.)

A. Fore wing. B. Hind wing.

f. Frenulum.
r. Retinaculum.
c.n. Costal nervure.
s.c. Subcostal nervure.
m.n. Median nervure.
i.n. Internal nervure.

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* A. Spuler, 'Zur Phylogenie und Ontogenie des Flügelgeäders der Schmetterlinge.'

Pyralid subfamily *Phycitinæ* and a few other forms the frenulum is single in both sexes. In the two most generalized families, the *Micropterygidæ* and *Hepialidæ*, the wings are not connected in any way; the others all have the frenulum developed, or in some groups, such as the *Papiliones*, *Arbelidæ*, *Lasiocampidæ*, *Bombycidæ*, *Saturniadæ*, and some genera of families that usually possess it, it has become aborted and its function is assumed by an expansion of the base of the costa of the hind wing.

The margins of the wing are termed (1) the fore margin or costa with the apex at its extremity, (2) the outer margin or termen with the tornus or outer angle at its junction with (3) the inner or dorsal margin; the termen and the terminal part of inner margin are fringed with elongate scales or cilia.

PHYLOGENY OF THE LEPIDOPTERA.

During the evolution of more or less specialized forms from the most generalized ones, their ancestors must have passed through certain stages which can be inferred with tolerable exactitude from the study of existing forms. The present families and genera are not of course derived from other existing ones, but from their ancestors, and when a family or genus is said to be derived from another all that is meant is that, in order to reach their present stage of specialization, their ancestors must have passed through a stage which would in essential points of structure come within the definition of the other family or genus.

The *Lepidoptera* are primarily divisible into two groups, the lower consisting of the two generalized families *Micropterygidæ* and *Hepialidæ*, characterized by having 12 veins to the hind wing as in the fore wing, a small lobe at the base of the fore wing—the so-called jugum—which is really the 'alula' found in many *Neuroptera*, *Hymenoptera*, and *Diptera*, and by the wings not being articulated together in any way. Of these the more generalized are the *Micropterygidæ*, very closely related to the Neuropterous *Trichoptera* or caddis-flies, and distinguished by the great development of the maxillary palpi and by having tibial spurs, both of which are absent in the *Hepialidæ* which are derived from them.

The other families constitute the *Frenatæ*, with at most eight veins to the hind wing and the wings articulated with one another by a frenulum and retinaculum, or, in forms in which these are aborted, by an expansion of the costa of the hind wing.

Of the *Frenatæ* the most generalized groups of families have vein 1 *c* of the hind wing present and vein 8 free from the base or connected with the cell by a bar, and of these the *Tineidæ* and *Tortricidæ*, with at least one medial spur of hind tibiæ well developed, come nearest to *Micropteryx*, from which they are possibly directly developed.

From the *Tineidæ* are derived:—(1) The *Sesiadæ*, with vein 8 of hind wing aborted; (2) the *Orneodidæ* and *Pterophoridæ*, with the wings divided into plumes; (3) the *Pyralidæ*, with vein 8 of hind wing closely approximated to or anastomosing with 7 beyond the cell, and vein 5 of fore wing from below middle of discocellulars, giving rise to the *Thyrididæ*, *Drepanidæ*, and *Callidulidæ*, with vein 1 *c* of hind wing absent; (4) the *Zygænidæ*, with the spurs of hind tibiæ small, the proboscis usually present, vein 8 of hind wing connected with the cell by a bar, and usually retaining the primitive vein 1 *c* of fore wing.

From the *Zygænidæ* were developed:—(*a*) The *Euschemonidæ*, with clubbed antennæ and without vein 1 *c* of each wing, giving rise by the abortion of the frenulum to the various families of *Papiliones*, of which the *Hesperiadæ* are the most nearly related to them. (*b*) The *Castniadæ*, also with clubbed antennæ but retaining vein 1 *c* of each wing and with vein 8 widely separated from the cell from base, giving rise to the *Neocastniadæ* with vein 1 *c* of both wings and the proboscis aborted. (*c*) The *Dalceridæ* *, with the proboscis aborted, from which arose the *Limacodidæ* with vein 8 of hind wing anastomosing with the cell usually near the base but sometimes beyond middle; giving rise to the *Megalopygidæ* with the mouth-parts aborted and vein 8 of hind wing anastomosing with the cell to middle or near extremity, the *Perophoridæ* with vein 8 of hind wing remote from the cell from base and 1 *c* of fore wing absent, their larvæ being case-dwellers, the *Chrysopolomidæ* with the frenulum absent, vein 1 *c* of both wings present, and vein 6 of fore wing from below middle of cell, the *Endromidæ* with the frenulum and vein 1 *c* of both wings absent and 8 of hind wings connected with the cell by a bar, from which sprung the *Lasiocampidæ*, with vein 8 of hind wing connected with 7 by a bar or anastomosing with it. (*d*) The *Cossidæ*, with the tibial spurs minute and the proboscis aborted, giving rise to the *Ratardidæ* † with the frenulum absent and vein 6 of fore wing from below angle of discocellulars, and the *Argyrotypidæ* ‡ with vein 1 *c* of fore wing absent, from which sprung the *Arbelidæ* with the frenulum also absent. (*e*) The *Heterogynidæ* and *Psychidæ*, with legless and wingless females and the proboscis aborted, the latter with the females and larvæ case-dwellers.

In the *Zygænidæ* vein 5 of the fore wing often retains its primitive medial position, whilst in all the families hitherto considered as having arisen from it, it has more or less migrated towards the median nervure; in the next group of families however (*f*) it either retains its medial position or migrates towards the subcostal nervure, and vein 1 *c* of both wings is absent; of these the most generalized are the *Uraniadæ*, with vein 8 of the hind wing diverging widely from the cell from base and 7 of fore wing remote from 8, 9 and usually stalked with 6; in some of its genera the abortion of the frenulum and development of the base of costa of hind wing can be traced in all its stages: from them arose the *Ceratocampidæ*, with the frenulum absent and vein 7 of fore wing connected with 8, 9, giving rise to the *Brahmæidæ* with vein 8 of hind wing approximated to 7, and the *Bombycidæ* and *Saturniadæ* with the proboscis and tibial spurs absent, the former having vein 8 of hind wing connected with the cell.

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* Consisting of the genera *Dalcera*, *Acraga*, and *Pinconia* from the Neotropical region.

† Consisting of the genus *Ratarda* from India.

‡ Containing the genera *Argyrotypus* and *Chrysotypus* from Madagascar, and *Acousmaticus* from Chili.

From the *Uraniadæ* arose also the *Geometridæ*, with vein 8 approximated to or connected or anastomosing with the cell and 7 of fore wing stalked with 8, 9; vein 5 of the hind wing is fully developed except in the subfamily *Boarmianæ*, which has 8 connected with the cell near base only, whilst in the *Notodontidæ* vein 5 is always obsolescent and 8 connected with the cell at middle; these last giving rise to the *Cymatophoridæ* and *Sphingidæ*, with vein 8 approximated to 7, the latter having also a bar between the cell and vein 8 near the base, and to the *Eupterotidæ*, with the proboscis absent.

In the last group of families arising from the *Notodontidæ*, vein 5 of the fore wing has migrated towards the median nervure; of these, the most primitive is the *Hypsidæ*, retaining the bar between vein 8 of hind wing and cell, giving rise to the *Lymantriadæ*, in which the proboscis is aborted, from which arose the *Pterothysanidæ*, with the frenulum absent. From the *Hypsidæ* are derived also the *Noctuidæ*, with vein 8 anastomosing with the cell near base, from which arose the *Agaristidæ*, with the antennæ dilated at extremity and day-flying or crepuscular habits, and the *Arctiadæ*, with vein 8 anastomosing with the cell to middle, giving rise to the *Syntomidæ*, with vein 8 aborted.

GEOGRAPHICAL DISTRIBUTION OF THE LEPIDOPTERA.*

As far as the distribution of the *Lepidoptera* is concerned, the Earth seems to be divisible into four main divisions only:—

(1) The Northern temperate region, with special Arctic developments in high mountain-chains and high latitudes, is characterized chiefly by the great development of the subfamily *Noctuinæ* of the *Noctuidæ*, the *Geometridæ*, *Notodontidæ*, *Cymatophoridæ*, *Arctiadæ*, *Lymantriadæ*, and *Zygænidæ*; its southern limits, exclusive of the high mountain-chain running through Mexico, Central and South America, and the scattered summits of the higher mountains of the tropics of the Old World, are approximately the southern boundary of the United States, exclusive of Florida, in Africa the Sahara, and in Asia, Arabia, Persia, the arid parts of N.W. India and the higher slopes of the Himalayas, its boundaries becoming very ill-defined in China and S. Japan.

(2) The Tropical zone of the Old World, characterized mainly by a great development of the subfamily *Plusianæ* of the *Noctuidæ*, the *Agaristidæ*, *Syntomidæ*, *Uraniadæ*, *Eupterotidæ*, *Saturniadæ*, *Limacodidæ*, and especially the *Thyrididæ* and *Pyralidæ*, and among

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* H. J. Elwes' presidential address to the Entomological Society, 1894.

butterflies the *Danainæ*, and in Africa the *Acræinæ*, and in the Malayan subregion the *Nemeobiinæ*.

(3) The Neotropical region, with much the same general characteristics as the tropics of the Old World, but with very distinct genera; the immense development of the *Syntomidæ* and the Pyralid subfamily *Chrysauginæ* being especially marked, whilst the *Zygænidæ* and the Pyralid subfamilies *Pyralinæ* and *Endotrichinæ*, greatly developed in the tropics of the Old World, are almost absent. Among butterflies the *Ithomiinæ*, *Heliconinæ*, *Brassolinæ*, *Morphinæ*, *Erycinidæ*, and *Dismorphiinæ* are largely developed, and a very marked feature of the region.

(4) The Australian region consists of (*a*) the temperate part of Australia and Tasmania, with some affinities to the extreme south of Africa, characterized by a great development of the Geometrid subfamily *Monocteniinæ*, the Tineid subfamilies *Œcophorinæ* and *Xyloryctinæ*, and the *Hepialidæ*, it has also some ancestral forms of *Pyralidæ*: (*b*) New Zealand, with affinities to Hawaii and the extreme south of America, characterized by the great development of the Pyralid subfamilies *Scopariinæ* and *Crambinæ*, and the *Micropterygidæ*, and an extreme poverty in other forms. The fauna of the region represents the scattered remnants of a very ancient and peculiar Southern fauna.

The Scheme of the Work.

The plan of the work is to begin with the most highly specialized families, genera, and species, and gradually work down to the most generalized forms; the order of the families and genera is that of the Phylogenetic tables, beginning on the extreme left and working down to the junction with another branch, then beginning again at its summit and working down to the same point, and so on, till the most generalized forms at the bottom of the table are reached. The arrangement of the species, however, is that of the synoptic tables of the species, beginning with the more specialized sections of genera founded on structural characters.

The references consist of one for each generic name, with its date and the type on which it is founded, whether it is retained as a genus or treated as a subgenus or synonym. The references to the species consist of the original reference and one for each synonym, with their dates, references to the best figure of the species and to such faunistic works and Catalogues as are in most general use, and references to the best descriptions and figures of the early stages, which are placed after the description of the imago.

Each genus and all the more important sections of genera are illustrated by process-blocks in the text, showing the facies of the species and all its more important structural characters, and all species that have not been satisfactorily figured in other works will appear in the coloured plates, which will be published separately in parts containing no letterpress except the explanation of the plates, a reference to the text of the volumes and the habitat of the species figured. Descriptions of all species hitherto described are included of which specimens are available for study, or about which sufficiently reliable information is published to enable them to be classified with approximate correctness, and lists of the species of which the descriptions are insufficient will be given at the end of the families; no new species are described unless they are represented by specimens in the British Museum.

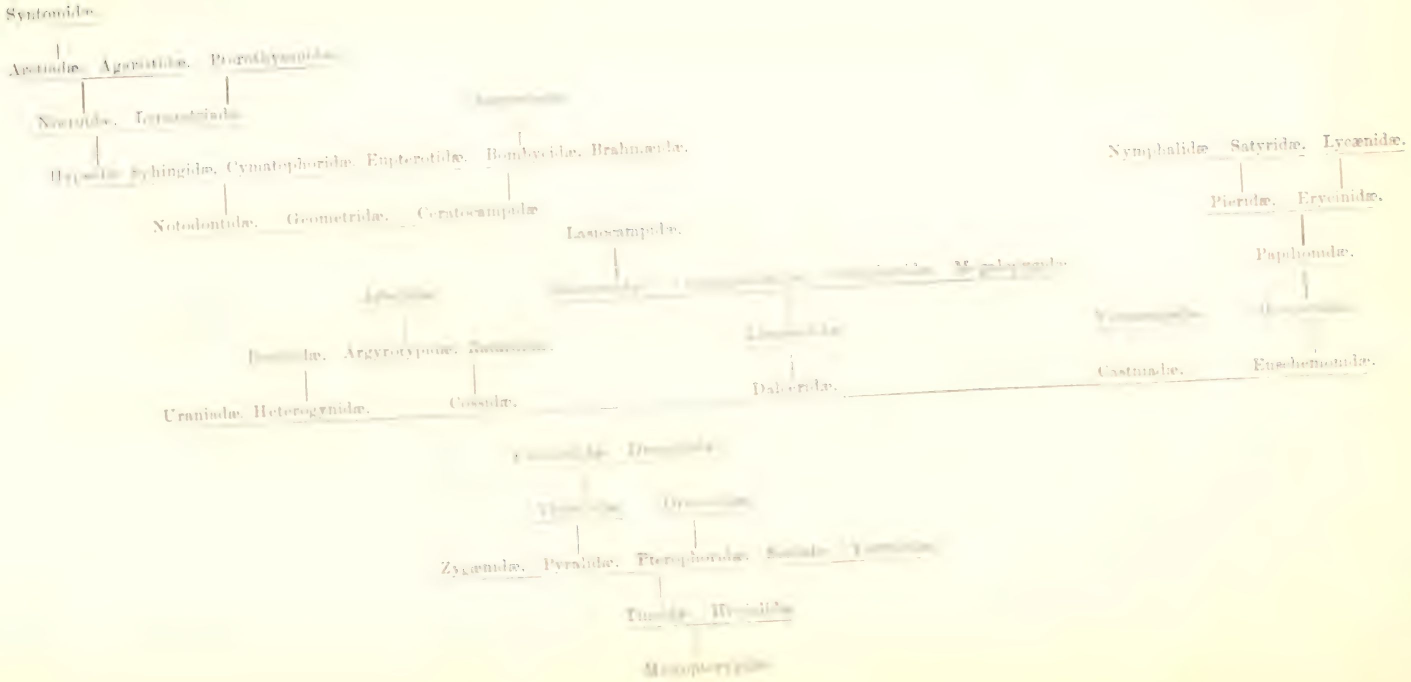
Local races are treated as subspecies with their own references and synonymy, but the references to what are considered to be varietal forms are given in the general synonymy.

Species that are not in the British Museum are marked by an (*) so as to enable students to know what material will be available for study, and also as a help to filling up the gaps in the Collection.

The locality from which all the types in the Collection came will be clearly stated, also the collections in which all types are at present deposited (when definitely known), those examined for purposes of the work being marked with a (†).

The range of the species is gone into with some minuteness, all the countries and their main divisions in which the species occurs being given in small capitals, and the towns or smaller districts in ordinary type, the name of the collector also (when known) being added as a guide to the reliability of the habitat; doubtful habitats are marked with a (?).

Phylogeny of the Lepidoptera.



KEY TO THE FAMILIES.

A. Hind wing with the cell emitting not more than 6 veins.
- *a*. Antennæ clubbed or dilated ; frenulum absent.
  - a^1. Fore wing with two or more veins stalked or coincident.
    - a^2. Anterior legs of male useless for walking.
      - a^3. Anterior legs of female useless for walking.
        - a^4. Fore wing with vein 12 greatly dilated at base .... 34. **Satyridæ.**
        - b^4. Fore wing with vein 12 not basally dilated.................................... 33. **Nymphalidæ.**
      - b^3. Anterior legs of female well developed. 37. **Erycinidæ.**
    - b^2. Anterior legs of male well developed.
      - a^3. Anterior tarsi of male more or less abbreviated or with one or both claws absent .... 36. **Lycænidæ.**
      - b^3. Anterior tarsi of male not abbreviated, claws developed.
        - a^4. Hind wing with vein 1 *a* absent ... 38. **Papilionidæ.**
        - b^4. Hind wing with vein 1 *a* present ... 35. **Pieridæ.**
  - b^1. Fore wing with all the veins present and separate .... 39. **Hesperiadæ.**
- *b*. Antennæ not clubbed or dilated, or frenulum present when clubbed or dilated.
  - a^1. Hind wing with vein 1 *c* absent.
    - a^2. Fore wing with vein 5 from nearer 4 than 6.
      - a^3. Hind wing with vein 8 aborted .... 1. **Syntomidæ.**
      - b^3. Hind wing with vein 8 present *.
        - a^4. Hind wing with vein 8 remote from 7.
          - a^5. Frenulum present.
            - a^6. Hind wing with vein 8 anastomosing with the cell to near or beyond middle ... . 2. **Arctiadæ.**
            - b^6. Hind wing with vein 8 anastomosing with the cell near base only.
              - a^7. Antennæ with the shaft more or less dilated towards extremity .... 3. **Agaristidæ.**
              - b^7. Antennæ with the shaft not dilated.................................. 4. **Noctuidæ.**
            - c^6. Hind wing with vein 8 connected with the cell by a bar.
              - a^7. Proboscis aborted .... 6. **Lymantriadæ.**
              - b^7. Proboscis well developed ... 7. **Hypsidæ.**
            - d^6. Hind wing with vein 8 free ; proboscis aborted .... 31. **Neocastniadæ.**
          - b^5. Frenulum absent.
            - a^6. Hind wing with vein 8 approximated to the cell at middle... 5. **Pterothysanidæ.**

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* In some specimens of certain species of a few genera of *Arctiadæ* allied to the *Syntomidæ* vein 8 is obsolescent or aborted, and in a few others it is coincident with 7 to beyond the cell.

- *b*⁶. Hind wing with vein 8 connected with the cell by a bar near base .... 25. **Endromidæ.**
- *b*⁴. Hind wing with vein 8 curved and approximated to or anastomosing with 7, or connected with it by a bar.
  - *a*⁵. Hind wing with a precostal spur to vein 8 .... 42. **Callidulidæ.**
  - *b*⁵. Hind wing with no precostal spur to vein 8.
    - *a*⁶. Hind wing with vein 1 *a* absent, or not reaching tornus. 13. **Drepanidæ.**
    - *b*⁶. Hind wing with vein 1 *a* reaching tornus.
      - *a*⁷. Frenulum present .... 44. **Thyrididæ.**
      - *b*⁷. Frenulum absent.............. 24. **Lasiocampidæ.**
- *b*³. Fore wing with vein 5 from middle of discocellulars, or nearer 6 than 4.
  - *a*⁴. Antennæ clubbed.. .... 19. **Euschemonidæ.**
  - *b*⁴. Antennæ with the shaft filiform or fusiform.
    - *a*⁴. Hind wing with vein 8 diverging from the cell from base.
      - *a*⁵. Fore wing with vein 7 connected with 8, 9.
        - *a*⁶. Proboscis absent; tibiæ without spurs .... 18. **Saturniadæ.**
        - *b*⁶. Proboscis present; tibiæ with spurs .... 16. **Ceratocampidæ.**
      - *b*⁵. Fore wing with vein 7 remote from 8, 9, usually stalked with 6. 17. **Uraniadæ.**
    - *b*⁴. Hind wing with vein 8 connected with or approximated to the cell or vein 7.
      - *a*⁵. Hind wing with vein 8 remote from 7.
        - *a*⁶. Proboscis absent.
          - *a*⁷. Frenulum absent............... 14. **Bombycidæ.**
          - *b*⁷. Frenulum present .... 10. **Eupterotidæ.**
        - *b*⁶. Proboscis present.
          - *a*⁷. Hind wing with vein 8 connected with the cell near middle; vein 5 obsolescent. 11. **Notodontidæ.**
          - *b*⁷. Hind wing with vein 8 connected with the cell near base only, or vein 5 fully developed .... 12. **Geometridæ.**
      - *b*⁵. Hind wing with vein 8 approximated to or anastomosing with 7.
        - *a*⁶. Frenulum absent .... 15. **Brahmæidæ.**
        - *b*⁶. Frenulum present.
          - *a*⁷. Hind wing with vein 8 connected with the cell by a bar near base........................ 8. **Sphingidæ.**
          - *b*⁷. Hind wing with vein 8 not connected with the cell ...... 9. **Cymatophoridæ.**

- b^1. Hind wing with vein 1 *c* present *.
  - a^2. Wings divided into plumes †.
    - a^3. Fore wing divided into at most four plumes .... 47. **Pterophoridæ.**
    - b^3. Fore wing divided into six plumes ... 46. **Orneodidæ.**
  - b^2. Wings not divided into plumes ‡.
    - a^3. Hind wing with vein 8 absent .... 48. **Sesiadæ.**
    - b^3. Hind wing with vein 8 anastomosing with or closely approximated to 7 ... 45. **Pyralidæ.**
    - c^3. Hind wing with vein 8 remote from 7.
      - a^4. Hind wing with vein 8 coincident with the cell to middle or near extremity; palpi absent .... 28. **Megalopygidæ.**
      - b^4. Hind wing with vein 8 anastomosing with the cell; palpi present.
        - a^5. Frenulum absent..................... 26. **Chrysopolomidæ.**
        - b^5. Frenulum present .... 29. **Limacodidæ.**
      - c^4. Hind wing with vein 8 free or connected with the cell by a bar.
        - a^5. Middle spurs of hind tibiæ very short or absent.
          - a^6. Proboscis absent.
            - a^7. Fore wing with vein 1 *c* absent.
              - a^8. Frenulum absent.
                - a^9. Fore wing with vein 9 stalked or connected with 8; larvæ wood-borers .... 20. **Arbelidæ.**
                - b^9. Fore wing with vein 9 widely separated from 8; larvæ case-dwellers .... 27. **Perophoridæ.**
              - a^8. Frenulum present .... 21. **Argyrotypidæ.**
            - b^7. Fore wing with vein 1 *c* present.
              - a^8. Frenulum absent............ 22. **Ratardidæ.**
              - b^8. Frenulum present.
                - a^9. Female winged.
                  - a^{10}. Larvæ wood-borers; abdomen extending beyond hind wing ... 23. **Cossidæ.**
                  - b^{10}. Larvæ free; hind wing extending beyond abdomen ...... 30. **Dalceridæ.**
                - b^9. Female wingless.
                  - a^{10}. Female and larvæ case-dwellers .... 18. **Psychidæ.**
                  - b^{10}. Female and larvæ free .... 19. **Heterogynidæ.**

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* Sometimes absent in the subfamily *Epibleminæ* of the *Tortricidæ* and in some *Tineidæ*.

† Except in *Agdistis*.

‡ Except in *Cenoloba* and an allied Pyralid genus of *Hydrocampinæ*.

b^6. Proboscis present*.
  a^7. Antennæ clubbed; hind wing with vein 8 diverging from the cell from base ... ... 32. **Castniadæ.**
  b^7. Antennæ filiform, rarely terminally dilated; hind wing with vein 8 approximated to the cell and connected with it by a bar ... ... 41. **Zygænidæ.**
b^5. Middle spurs of hind tibiæ or at least one well developed.
  a^6. Palpi obtuse ... ... 49. **Tortricidæ.**
  b^6. Palpi more or less acute ... ... 50. **Tineidæ.**

B. Hind wing with the cell emitting more than 6 veins.
  a. Maxillary palpi and tibial spurs absent ... ... 51. **Hepialidæ.**
  b. Maxillary palpi and tibial spurs well developed ... ... 52. **Micropterygidæ.**

Family SYNTOMIDÆ.

Proboscis usually well developed, but sometimes aborted; palpi short and porrect, long and downcurved, or upturned; frons rounded; antennæ simple, ciliated, or bipectinate, usually with short branches dilated at extremity in both sexes; tibiæ with the spurs short. Fore wing usually with the terminal area broad; vein 1 *a* forming a fork with 1 *b*, 1 *c* absent; 5 from below middle of discocellulars; 7 stalked with 8, 9. Hind wing small; vein 1 *a* often absent; 1 *c* absent; 8 absent, rarely rudimentary and not reaching costa; frenulum present; retinaculum bar-shaped.

A family of Moths of small or medium size and semi-diurnal habits derived from the *Arctiadæ*, but usually with the facies of the *Zygænidæ*, from some of which, with vein 6 of the hind wing absent, they are not very easily distinguishable at first sight; but these latter have vein 8 of the hind wing usually more or less separate from the cell and connected with it by a bar, and in the fore wings vein 1 *c* present and 7 from the cell.

From the *Arctiadæ* they are to be distinguished by vein 8 of the hind wing being absent, but in *Xanthopleura*, *Anaphlebia*, many species of *Eucereon*, and a few other genera, it is present as an aborted fragment not reaching the costa; whilst in certain species of the genus *Halisidota*, which is best placed in the *Arctiadæ*, many specimens have vein 8 rudimentary or sometimes entirely absent, and a few have it represented by two or even three rudimentary spurs from the upper margin of cell, so that no very exact line can be drawn between the two families.

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* In the Zygænid subfamily *Phaudinæ* the mouth-parts are aborted.

A few other genera of *Arctiadæ*, *Automolis* and its allies, appear to sometimes have vein 8 of the hind wing absent, but this is really due to veins 6, 7 being coincident and 8 stalked with them or from angle of cell, all the gradations of this form being traceable; these can be distinguished by the coincident veins 6, 7 being given off from the upper angle of cell with a slight upward turn, whilst vein 6 when separate is given off with a downward turn.

The most generalized genus in the family, and most nearly allied to the *Arctiadæ*, is probably *Hyaleucerea*, with the palpi upturned, fore wing with veins 4, 5, and 10 from the cell; hind wing with vein 8 rudimentary, vein 7 present, 5 from near angle of cell, and 2 from well before angle. From this have developed, among New-World forms:—

(1) Genera with rostriform palpi, such as *Scepsis*; a group with vein 5 of hind wing stalked with 4, such as *Euagra*, or with veins 4, 5 of fore wing stalked, such as *Lymire*; a group with lateral tufts on the abdomen, such as *Didasys*, with tufts of scales on medial part of antennæ as in *Dinia*, or with the 2nd segment of abdomen constricted as in *Trichura*; forms with vein 4 of hind wing absent as in *Sesiura*, or both 3 and 4 absent as *Desmidocnemis*, or vein 4 of fore wing absent as *Syntrichura*.

(2) Genera with vein 2 of hind wing from angle of cell, vein 5 being present, such as *Amycles*.

(3) A main division with vein 5 of hind wing obsolescent from middle of discocellulars, of which the most primitive is *Autochloris* with vein 2 from long before angle of cell, whilst nearly all the genera have it from the angle, of these *Ixylasia* has vein 3 stalked with 4, but nearly all the others have it stalked or coincident with 2, *Macrocneme* and *Pseudomya* having the hind tarsi tufted with scales, *Loxophlebia* with vein 5 of fore wing from well above angle of cell; a group of genera being clothed with rough hair, such as *Sarosa*; another group with the medial part of shaft of antennæ thickened, such as *Isanthrene* and *Euchromia*, which is the only Old-World genus with affinities to the Neotropical forms; a group with the 2nd segment of abdomen constricted and closely "mimicking" Hymenoptera, such as *Pseudosphex*; and a group with tufts of scales on terminal segments of abdomen, such as *Mallodeta*.

(4) Among the Old-World forms which are developed from an Arctoid form low down in the family, *Pseudapiconoma* has vein 7 of hind wing obsolescent from angle of cell, and *Hyalæthea* has it on a long stalk with 6; all the other genera have veins 6, 7 coincident, among which the *Dysauxes* group have vein 4 of hind wing present, the *Syntomis* group have it absent, and the *Ceryx* group have both 3 and 4 absent.

Egg upright, with the micropyle at the top.

Larva with prothoracic shield; no hairs from the skin, the tubercles with many hairs, many species with long tufts on the anterior and posterior somites; tubercles all present or with slight tendency to unequal reduction or equally reduced; somites 4 to 13 with (i) anterior tubercle in subdorsal space, (ii) the subdorsal posterior row, (iii) the suprastigmatal anterior row, (iv) the stigmatal row behind spiracles, (v) substigmatal anterior, (vi) substigmatal posterior, (vii) 3 or 4 tubercles on outer side of base of leg, (viii) ventral on inner side of leg; tubercles iv, v remote, or iv sometimes absent, not more than two tubercles being placed on the middle annulet of somite and usually one, but not more, on the posterior annulet; the ventral prolegs with hooks on inner side only. The larva feeds exposed, and forms a cocoon of silk and hair or the latter only.

Fig. 7.—Larva of *Euchromia polymena*.
(From 'Moths of India,' vol. i.)

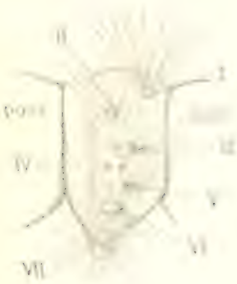


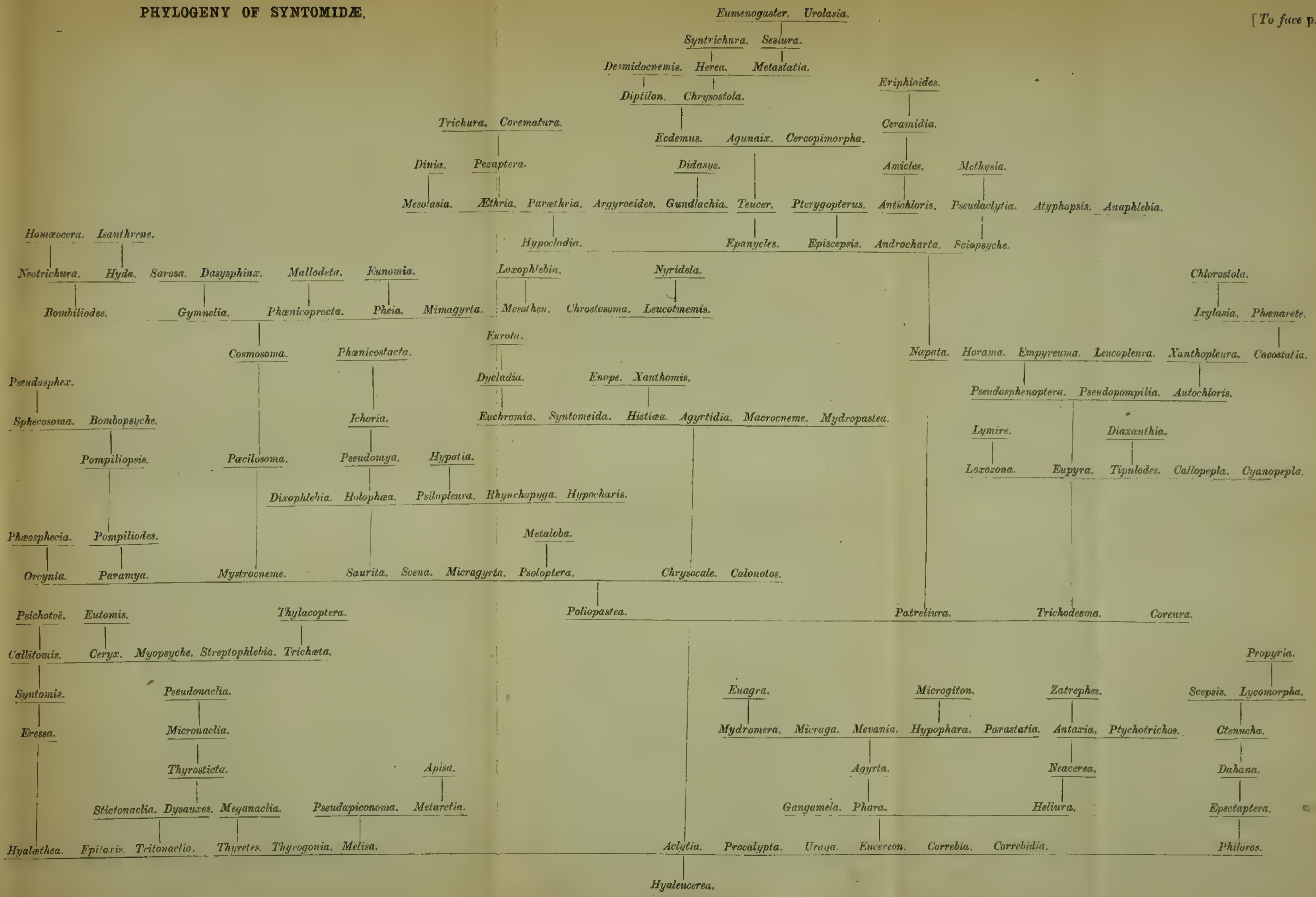
Fig. 8.
Larva of *Empyreuma pugione*.
Somite vi.

Pupa smooth, rounded, externally solid, the inner dissepiments weak; free somites the 8th and 9th; does not emerge from cocoon; dehiscence by irregular fracture.

Key to the Genera.

A. Hind wing with veins 6, 7 coincident.
a. Hind wing with vein 4 absent.
a^1. Hind wing with vein 3 absent.
a^2. Proboscis aborted; palpi upturned .... ZATREPHES, p. 474.
b^2. Proboscis well developed; palpi porrect.
a^3. Thorax clothed with long hair below............ ECTOMIS, p. 34.
b^3. Thorax smoothly scaled below .... CERYX, p. 35.
b^1. Hind wing with vein 3 present.
a^2. Hind wing with vein 5 from lower angle of cell or stalked with 3.
a^3. Fore wing with veins 8, 9, 10 absent............ THYLACOPTERA, p. 52.
b^3. Fore wing with vein 9 absent, 8 and 10 present.
a^4. Fore wing with veins 4, 5 stalked .... PSEUDONACLIA, p. 127.
b^4. Fore wing with veins 4, 5 from cell.
a^5. Abdomen with the terminal segments dilated and hairy .... PSICHOTOË, p. 32.
b^5. Abdomen with the terminal segments not dilated .... MICRONACLIA, p. 128.
c^3. Fore wing with vein 9 present.
a^4. Fore wing with veins 2, 3 stalked or from a point .... MYOPSYCHE, p. 48.
b^4. Fore wing with veins 2, 3 well separated at origin.
a^5. Fore wing with vein 6 anastomosing with 7 near apex .... STREPTOPHLEBIA. [p. 52.

PHYLOGENY OF SYNTOMIDÆ.


Eumenogaster. Urolasia.
Syntrichura. Sesiura.
Desmidocnemis. Herea. Metastatia.
Eriphioides.
Diptilon. Chrysostola.
Trichura. Corematura.
Ceramidia.
Ecdemus. Agunaix. Cercopimorpha.
Dinia. Pezaptera.
Didasys.
Amicles. Methysia.
Mesolasia. Æthria. Paræthria. Argyroeides. Gundlachia. Teucer. Pterygopterus. Antichloris. Pseudaclytia. Atyphopsis. Anaphlebia.
Homœocera. Isanthrene.
Hypocladia. Epanycles. Episcepsis. Androcharta. Sciopsyche.
Neotrichura. Hydæ. Sarosa. Dasysphinx. Mallodeta. Eunomia. Loxophlebia. Nyridela. Chlorostola.
Bombiliodes. Gymnelia. Phœnicoprocta. Pheia. Mimagyrta. Mesothen. Chrostosoma. Leucotmemis. Ixylasia. Phænarete.
Eurota.
Cosmosoma. Phœnicostacta. Napata. Horama. Empyreuma. Leucopleura. Xanthopleura. Cacostatia.
Pseudosphex. Dycladia. Enope. Xanthomis.
Pseudosphenoptera. Pseudopompilia. Autochloris.
Sphecosoma. Bombopsyche. Ichoria. Euchromia. Syntomeida. Histiæa. Agyrtidia. Macrocneme. Mydropastea.
Lymire. Diaxanthia.
Pompiliopsis. Pœcilosoma. Pseudomyia. Hypatia.
Loxozona. Eupyra. Tipulodes. Callopepla. Cyanopepla.
Dixophlebia. Holophæa. Psilopleura. Rhynchopyga. Hypocharis.
Metaloba.
Phæosphecia. Pompiliodes.
Orcynia. Paramya. Mystrocneme. Saurita. Scena. Micragyrta. Psoloptera. Chrysocale. Calonotos.
Poliopastea. Patreliura. Trichodesma. Coreura.
Psichotoë. Eutomis. Thylacoptera.
Callitomis. Ceryx. Myopsyche. Streptophlebia. Trichæta.
Propyria.
Pseudonaclia. Euagra. Microgiton. Zatrephes.
Syntomis. Scepsis. Lycomorpha.
Eressa. Micronaclia. Mydromera. Micraga. Mevania. Hypophara. Parastatia. Antaxia. Ptychotrichos. Ctenucha.
Thyrosticta. Apisa. Agyrta. Neacerea. Dahana.
Stictonaclia. Dysauxes. Meganaclia. Pseudapiconoma. Metarctia. Gangamela. Phara. Heliura. Epectaptera.
Hyalæthea. Epitoxis. Tritonaclia. Thyretes. Thyrogonia. Melisa. Aclytia. Procalypta. Uraga. Eucereon. Correbia. Correbidia. Philoros.
Hyaleucerea.

b^{5}. Fore wing with vein 6 not anastomosing with 7.

a^{6}. Fore wing with vein 3 from close to angle of cell, 4, 5 stalked .... Trichæta, p. 53.

b^{6}. Fore wing with vein 3 from well before angle of cell; 4, 5 usually from cell.

a^{7}. Palpi upturned .... Antaxia, p. 475.

b^{7}. Palpi porrect.

a^{8}. Wings sparsely clothed with hair-like setæ .... Callitomis, p. 33.

b^{8}. Wings clothed with scales and usually with hyaline patches.

a^{9}. Palpi extending about the length of head .... Stictonaclia, p. 125.

b^{9}. Palpi not extending beyond frons.

a^{10}. Fore wing with vein 11 stalked with 7, 8, 9, 10 .... Syntomis, p. 59.

b^{10}. Fore wing with vein 11 from the cell. Epitoxis, p. 124.

b^{2}. Hind wing with vein 5 from well above angle of cell.

a^{3}. Palpi extending about the length of head; head, thorax, and abdomen clothed with rough hair .... Apisa, p. 140.

b^{3}. Palpi not extending beyond frons; head, thorax, and abdomen more smoothly scaled... Eressa, p. 115.

b. Hind wing with vein 4 present.

a^{1}. Head, thorax, and abdomen smoothly scaled.

a^{2}. Fore wing with vein 11 stalked with 7, 8, 9, 10.

a^{3}. Fore wing with veins 4, 5 stalked .... Meganaclia, p. 136.

b^{3}. Fore wing with veins 4, 5 from cell.

a^{4}. Hind wing with veins 4, 5 stalked .... Thyrosticta, p. 129.

b^{4}. Hind wing with veins 4, 5 from angle of cell.

a^{5}. Fore wing with vein 3 from near angle of cell .... Dysauxes, p. 132.

b^{5}. Fore wing with vein 3 from well before angle of cell .... Tritonaclia, p. 135.

c^{4}. Hind wing with vein 5 from well above angle of cell .... Thyretes, p. 137.

b^{2}. Fore wing with vein 11 from cell; hind wing with vein 5 stalked with 4 and obsolescent .. Thyrogonia, p. 139.

b^{1}. Head, thorax, and abdomen clothed with rough hair; fore wing with vein 11 from the cell...... Metarctia, p. 143.

B. Hind wing with veins 6, 7 not coincident.

a. Hind wing with vein 5 obsolescent from angle of discocellulars.

a^{1}. Hind wing with vein 3 stalked or coincident with 2.

a^{2}. Fore wing with vein 10 stalked with 7, 8, 9.

a^{3}. Abdomen with lateral and anal tufts on last segment.

a^{4}. Abdomen with lateral tufts on last four segments.

a^{5}. Abdomen attenuate .... Mallodeta, p. 193.

b^{5}. Abdomen stout .... Eurota, p. 285.

b^{4}. Abdomen with lateral tufts on terminal segment only.

a^{5}. Fore wing with veins 2–7 fringed with hair above, 2 from near angle of cell .... Dixophlebia, p. 259.

b^{5}. Fore wing with veins 2–7 not fringed with hair, 2 from long before angle of cell ...... Phœnicoprocta, [p. 196.

b^4. Abdomen without lateral tufts on last segment.
a^4. Abdomen constricted near base.
a^5. Fore wing with vein 7 given off nearer the apex than 9.
a^6. Fore wing with vein 4 curved and approximated to 5 for some distance; abdomen gradually expanding after the peduncle … Pseudosphex, p. 154.
b^6. Fore wing with vein 4 not approximated to 5; abdomen suddenly expanding after the peduncle … Bombopsyche, p. 161.
b^5. Fore wing with vein 7 from 8 before 9.
a^6. Abdomen with slender peduncle.
a^7. Abdomen gradually expanding after the peduncle … Sphecosoma, p. 157.
b^7. Abdomen suddenly expanding after the peduncle, then tapering to apex ……… Pompiliopsis, p. 161.
b^6. Abdomen slightly constricted at 2nd segment … Pompiliodes, p. 162.
b^4. Abdomen not constricted near base.
a^5. Antennæ with the shaft dilated just before extremity … Eunomia, p. 200.
b^5. Antennæ with the medial part of shaft dilated.
a^6. Thorax clothed with woolly hair.
a^7. Hind wing with the lower part of cell very short, veins 2 and 4 on a long stalk … Homoeocera, p. 165.
b^7. Hind wing with the lower part of cell long, veins 2 and 4 from angle.
a^8. Palpi upturned … Neotrichura, p. 169.
b^8. Palpi downcurved, extending about the length of head ………………………… Xanthomis, p. 309.
b^6. Thorax smoothly scaled.
a^7. Hind tibiæ towards extremity and tarsi fringed with scales …………… ……….. Macrocneme, p. 316.
b^7. Hind tibiæ and tarsi naked.
a^8. Hind wing with the lower part of cell very short.
a^9. Antennæ dilated from near base; palpi reaching above vertex of head; abdomen and fore wing long ……………… Isanthrene, p. 170.
b^9. Antennæ dilated and serrate at middle; palpi not reaching vertex of head; abdomen and fore wing short ……… Hyda, p. 178.
b^8. Hind wing with the cell normal, veins 2 and 4 shortly stalked or from angle.
a^9. Fore wing with vein 3 from angle of cell.
a^{10}. Palpi with the 2nd joint reaching vertex of head; antennæ much dilated … Dycladia, p. 292.
b^{10}. Palpi not reaching vertex of head; antennæ slightly dilated ……. …… Euchromia, p. 293.
b^9. Fore wing with vein 3 from well before angle of cell.
a^{10}. Abdomen stout; fore wing broad, vein 11 from cell …………………… Bombiliodes, p. 179.
b^{10}. Abdomen more slender; fore wing long and narrow, vein 11 usually stalked with 7, 8, 9, 10……………… Syntomeida, p. 305.

c^5. Antennæ with the shaft not dilated.

a^6. Thorax clothed with woolly hair above.

a^7. Hind wing with the lower part of cell very short.

a^8. Palpi upturned .... Sarosa, p. 185.

b^8. Palpi porrect .... Dasysphinx, p. 188.

b^7. Hind wing with the cell normal.

a^8. Hind wing with veins 2 and 4 stalked.

a^9. Fore wing with vein 11 stalked with 7, 8, 9, 10.

a^{10}. Abdomen hairy; fore wing with vein 6 from angle of cell .... Enope, p. 309.

b^{10}. Abdomen smooth; fore wing with vein 6 from below angle of cell ...... Agyrtidia, p. 315.

b^9. Fore wing with vein 11 from the cell.

a^{10}. Fore wing narrow .... Mydropastea, p. 326.

b^{10}. Fore wing broad .... Gymnelia, p. 189.

b^8. Hind wing with veins 2 and 4 from cell, which is very long........................ Histiæa, p. 310.

b^6. Thorax smoothly scaled.

a^7. Hind wing with veins 6, 7 stalked .... Paramya, p. 164.

b^7. Hind wing with veins 6, 7 from cell.

a^8. Hind wing with the discocellulars oblique throughout, the lower part of cell very short.

a^9. Fore wing with vein 5 from lower angle of cell .... Pheia, p. 203.

b^9. Fore wing with vein 5 from well above angle of cell .... Loxophlebia, p. 206.

b^8. Hind wing with the discocellulars angled.

a^9. Hind wing with veins 2 and 4 strongly stalked.

a^{10}. Fore wing with vein 11 stalked with 7, 8, 10.

a^{11}. Fore wing with vein 9 absent ...... Mimagyrta, p. 206.

b^{11}. Fore wing with vein 9 present ...... Chrostosoma, p. 215.

b^{10}. Fore wing with vein 11 from the cell.

a^{11}. Palpi upturned.

a^{12}. Fore wing with vein 6 from angle of cell.

a^{13}. Fore wing with vein 5 from well above angle of cell .... Mesothen, p. 212.

b^{13}. Fore wing with vein 5 from angle of cell.

a^{14}. Fore wing long and narrow ...... Rhynchopyga, p. 268.

b^{14}. Fore wing moderately broad.

a^{15}. Fore wing with vein 2 from near angle of cell and downcurved... Nyridela, p. 218.

b^{15}. Fore wing with vein 2 from well before angle of cell and oblique.

a^{16}. Fore wing with vein 3 from close to angle of cell .... Leucotmemis, p. 219.

b^{16}. Fore wing with vein 3 from well before angle of cell ...... Cosmosoma, p. 225.

b^{12}. Fore wing with vein 6 from below angle of cell.

a^{13}. Hind wing with the lower part of cell short, veins 2 and 4 on a long stalk .... Pœcilosoma, p. 256.

b^{13}. Hind wing with the lower part of cell normal, veins 2 and 4 on moderate stalk .... MYSTROCNEME, p. 258.

b^{12}. Palpi porrect.

a^{13}. Hind tarsi fringed with scales...... [illegible] [p. 259.

b^{13}. Hind tarsi naked .... ICHORIA, p. 260.

b^{10}. Hind wing with veins 2 and 4 from angle of cell or shortly stalked.

a^{11}. Hind tibiæ at extremities and tarsal joints fringed with scales .... PSEUDOMYA, p. 262.

b^{11}. Hind tibiæ and tarsi naked.

a^{12}. Fore wing with vein 6 from angle of cell.

a^{13}. Palpi upturned .... SAURITA, p. 271.

b^{13}. Palpi porrect .... HOLOPHÆA, p. 265.

b^{12}. Fore wing with vein 6 from below angle of cell.

a^{13}. Fore wing with veins 4, 5 stalked . HYPOCHARIS, p. 271.

b^{13}. Fore wing with vein 5 from angle of cell .... PSILOPLEURA, p. 267.

c^{13}. Fore wing with vein 5 from well above angle of cell .... HYPATIA, p. 266.

b^2. Fore wing with vein 10 from the cell.

a^3. Hind wing with the lower part of cell short, the upper discocellular oblique. .... ORCYNIA, p. 154.

b^3. Hind wing with the lower part of cell normal.

a^4. Fore wing with vein 4 curved and approximated to 5 for some distance .... CALONOTOS, p. 332.

b^4. Fore wing with veins 4, 5 not approximated.

a^5. Palpi upturned; thorax and abdomen clothed with woolly hair.

a^6. Hind wing with vein 3 absent .... SCENA, p. 281.

b^6. Hind wing with vein 3 from 2 near base .... CHRYSOCALE, p. 329.

b^5. Palpi porrect; thorax and abdomen smoothly scaled .... POLIOPASTEA, p. 336.

c^2. Fore wing with vein 10 stalked with 11.

a^3. Abdomen with the 2nd segment strongly constricted .... PHEOSPHECIA, p. 153.

b^3. Abdomen with the 2nd segment not constricted.

a^4. Fore wing broad; vein 2 from towards angle of cell; 4, 5 not approximated .... MICRAGYRTA, p. 282.

b^4. Fore wing narrow; vein 2 from long before angle of cell; 4, 5 somewhat approximated for a short distance.

a^5. Hind wing with veins 6, 7 from cell, 8 absent .... PSOLOPTERA, p. 284.

b^5. Hind wing with veins 6, 7 stalked, 8 present in ♂, but rudimentary .... METALOBA, p. 283.

b^1. Hind wing with vein 3 stalked with 4.

a^2. Hind wing with vein 2 from just before angle of cell.

a^3. Antennæ with the shaft dilated at middle...... CHLOROSTOLA, p. 427.

b^3. Antennæ with the shaft not dilated . ... PHÆNARETE, p. 430.

b^2. Hind wing with vein 2 from well before angle of cell.

a^3. Hind wing with the cell three-fourths length of wing: build stout .... IXYLASIA, p. 428.

b^3. Hind wing with the cell two-thirds length of wing; build slender .... CACOSTATIA, p. 430.

c^1. Hind wing with vein 3 from angle of cell, 2 from long before angle.

a^2. Hind wing with veins 6, 7 stalked, 8 present and rudimentary .... XANTHOPLEURA, [p. 426.

b^2. Hind wing with veins 6, 7 from cell, 8 absent... AUTOCHLORIS, p. 432.

b. Hind wing with vein 5 fully developed from below angle of discocellulars.

a^1. Hind wing with vein 2 from, or from close to angle of cell.

a^2. Hind wing with vein 5 from lower angle of cell, 2 and 4 stalked, 3 absent .... LEUCOPLEURA, p. 423.

b^2. Hind wing with vein 5 from well above angle of cell.

a^3. Hind wing with vein 4 absent.

a^4. Abdomen with lateral anal tufts .... ERIPHIOIDES, p. 393.

b^4. Abdomen without lateral anal tufts.

a^5. Fore wing with vein 7 from towards apex; hind wing with vein 5 from just below angle of discocellulars .... CERAMIDIA, p. 395.

b^5. Fore wing with vein 7 from long before apex; hind wing with vein 5 from long below angle of discocellulars .... AMYCLES, p. 398.

b^3. Hind wing with vein 4 present.

a^4. Antennæ with the shaft strongly dilated beyond middle .... HORAMA, p. 417.

b^4. Antennæ with the shaft not dilated .... EMPYREUMA, p. 422.

b^1. Hind wing with vein 2 from well before angle of cell.

a^2. Hind wing with vein 3 from 2 near margin, 5 from angle of cell .... PSEUDOSPHENOPTERA, [p. 424.

b^2. Hind wing with veins 3, 4 absent .... DESMIDOCNEMIS, [p. 363.

c^2. Hind wing with vein 4 absent, 3 present.

a^3. Fore wing with vein 4 absent.

a^4. Antennæ with the shaft fringed with hair above at middle .... SYNTRICHURA, p. 366.

b^4. Antennæ with the shaft not fringed with hair above .... HEREA, p. 367.

b^3. Fore wing with vein 4 present.

a^4. Hind wing with veins 3, 5 stalked; palpi porrect; fore wing with vein 7 from 8 beyond 9........ PROPYRIA, p. 521.

b^4. Hind wing with vein 5 from angle of cell.

a^5. Abdomen with the 2nd segment not constricted.

a^6. Hind wing with veins 6, 7 on a long stalk . HYALÆTHEA, p. 123.

b^6. Hind wing with veins 6, 7 from cell.

a^7. Fore wing with veins 4, 5 stalked .... PTYCHOTRICHOS, p. 477.

b^7. Fore wing with vein 5 from cell .... NEACEREA, p. 478.

b^5. Abdomen with the 2nd and 3rd segments constricted.

a^6. Fore wing with veins 4, 5 from cell .... UROLASIA, p. 370.

b^6. Fore wing with veins 4, 5 stalked .... PSEUDOPOMPILIA, [p. 425.

c^4. Hind wing with vein 5 from above angle of cell.

a^5. Abdomen with lateral tufts and fringe of hair on terminal segments; hind wing with the cell extending to near termen.

a^6. Abdomen with the 2nd segment strongly constricted .... EUMENOGASTER, [p. 368.

b^6. Abdomen with the 4th and 5th segments slightly constricted .... SESIURA, p. 371.

b^5. Abdomen with tufts on last segment only; hind wing with the cell about two-thirds of wing ..... **Metastatia**, p. 371.

c^5. Abdomen without lateral tufts and fringe of hair on terminal segments.

a^6. Hind wing with the cell extending nearly to termen ..... **Dipilos**, p. 364.

b^6. Hind wing with the cell about two-thirds of wing.

a^7. Abdomen constricted at 2nd segment ..... **Chrysostola**, p. 372.

b^7. Abdomen not constricted.

a^8. Fore wing with vein 10 stalked with 7, 8, 9; antennæ pectinate, the shaft not dilated.

a^9. Palpi fringed with hair above; hind wing of male normal .... **Dianasthia**, p. 437.

b^9. Palpi not fringed with hair above; hind wing of male with the costa excised ..... **Antichloris**, p. 399.

b^8. Fore wing with vein 10 from the cell; antennæ biserrate, the shaft dilated at middle ..... **Lycomorpha**, p. 522.

d^2. Hind wing with vein 4 present.

a^3. Abdomen constricted at 2nd segment.

a^4. Hind wing with the inner area normal ..... **Æthria**, p. 348.

b^4. Hind wing with the inner area reduced to a lobe clothed with hair.

a^5. Antennæ with the shaft dilated at middle and clothed with rough hair .... **Trichura**, p. 341.

b^5. Antennæ with the shaft not dilated and smooth at middle.

a^6. Abdomen with very large terminal brush (♂) ..... **Coremataura**, p. 346.

b^6. Abdomen with slight tufts of hair on terminal segment.

a^7. Fore wing with vein 3 from angle of cell, 11 stalked with 7, 8, 9, 10. .... **Pezaptera**, p. 347.

b^7. Fore wing with vein 3 from before angle of cell, 11 from cell ..... **Argyroeides**, p. 354.

b^3. Abdomen with the 2nd segment not constricted.

a^4. Antennæ with the medial part of shaft fringed with long hair.

a^5. Abdomen with large lateral tufts of hair ..... **Dinia**, p. 338.

b^5. Abdomen without lateral tufts of hair ..... **Mesolasia**, p. 339.

b^4. Antennæ with the shaft not fringed with hair.

a^5. Abdomen with lateral tufts on terminal segments.

a^6. Abdomen not clothed with rough hair.

a^7. Fore wing with vein 7 given off beyond 9. **Didasys**, p. 360.

b^7. Fore wing with vein 7 given off before 9.

a^8. Hind wing with vein 5 from angle of cell .... **Gundlachia**, p. 361.

b^8. Hind wing with vein 5 from below middle of discocellulars.............................. **Parastatia**, p. 468.

a^6. Abdomen clothed with rough hair; fore wing with vein 7 given off before 9......... **Eupyra**, p. 433.

b^5. Abdomen without lateral tufts.

a^6. Fore wing with veins 2, 3 on a long stalk, 5 from well above angle of cell .... **Paræthria**, p. 353.

b^8. Fore wing with veins 2, 3 from cell, 5 from lower angle.

a^7. Palpi upturned, the 3rd joint erect.

a^8. Hind wing with vein 5 from close to angle of cell or stalked with 4.

a^9. Hind wing with veins 4, 5 on a long stalk.

a^{10}. Hind wing with veins 2, 3 from a point before angle of cell; fore wing with veins 4, 5 from cell .... Methysia, p. 401.

b^{10}. Hind wing with vein 3 from, or from close to angle of cell.

a^{11}. Fore wing with veins 4, 5 stalked, 6 from angle of cell .... Lymire, p. 414.

b^{11}. Fore wing with veins 4, 5 from cell.

a^{12}. Fore wing with vein 6 from below angle of cell......... .... Pseudaclytia, p. 402.

b^{12}. Fore wing with vein 6 from angle of cell.

a^{13}. Abdomen smoothly scaled; build slender .... Euagra, p. 461.

b^{13}. Abdomen dorsally clothed with rough hair at base; build stout.. Loxozona, p. 416.

b^9. Hind wing with veins 4, 5 shortly stalked, 3 from before angle of cell.

a^{10}. Fore wing with veins 4, 5 stalked ... Atyphopsis, p. 403.

b^{10}. Fore wing with veins 4, 5 from cell .. Mydromera, p. 465.

c^9. Hind wing with veins 4, 5 from cell, rarely hardly stalked.

a^{10}. Fore wing with veins 4, 5 stalked.

a^{11}. Fore wing with vein 11 stalked with 7, 8, 9, 10; hind wing with vein 8 rudimentary.............................. Anaphlebia, p. 404.

b^{11}. Fore wing with vein 11 from cell; hind wing with vein 8 absent ...... Micragra, p. 466.

b^{10}. Fore wing with veins 4, 5 from cell.

a^{11}. Hind wing with veins 3, 4 on a long stalk .... Tipulodes, p. 437.

b^{11}. Hind wing with veins 3, 4 from cell or shortly stalked.

a^{12}. Fore wing with vein 11 stalked with 7, 8, 9, 10 .... Callopepla, p. 437.

b^{12}. Fore wing with vein 11 from the cell.

a^{13}. Fore wing with vein 10 stalked with 7, 8, 9.

a^{14}. Abdomen dorsally clothed with rough hair at base.

a^{15}. Abdomen without lateral tubercles at base.

a^{16}. Hind wing with veins 6, 7 from cell; antennæ with the shaft not dilated .... Eucereon, p. 485.

b^{16}. Hind wing with veins 6, 7 shortly stalked; antennæ with the shaft somewhat dilated ... Epanycles, p. 312.

b^{15}. Abdomen with lateral tubercles at base .... Gangamela, p. 460.

b^{14}. Abdomen smoothly scaled.
  a^{15}. Fore wing with vein 6 from angle of cell.
    a^{16}. Abdomen with lateral tubercles at base; hind wing not aborted in male, the lower part of cell long .... NAPATA, p. 405.
    b^{16}. Abdomen without lateral tubercles at base; hind wing of male much aborted and neuration much distorted, the lower part of cell shorter than upper. ANDROCHARTA, p. 390.
  b^{15}. Fore wing with vein 6 from well below angle of cell.
    a^{16}. Fore wing with veins 7, 8, 9 from a point towards apex.
      a^{17}. Fore wing with the cell broad at extremity, vein 3 from directly below angle .... MEVANIA, p. 467.
      b^{17}. Fore wing normal, vein 3 from before angle of cell .... SCIOPSYCHE, p. 404.
    b^{16}. Fore wing with vein 7 from long before 8, 9 .... AGYRTA, p. 469.
b^{13}. Fore wing with vein 10 from the cell. HYALEUCEREA, p. 533.
b^{8}. Hind wing with vein 5 from well above angle of cell.
  a^{9}. Hind wing with veins 6, 7 strongly stalked.
    a^{10}. Hind wing with veins 3, 4 stalked .... LOXOPHLEBIA, [p. 379.
    b^{10}. Hind wing with veins 3, 4 from cell.
      a^{11}. Fore wing with veins 4, 5 from a point or shortly stalked.
        a^{12}. Fore wing with veins 8, 9, 10, 11 at intervals from 7 .... AGUNAIX, p. 378.
        b^{12}. Fore wing with vein 7 from 8 before 9, 11 from cell .... TEUCER, p. 380.
      b^{11}. Fore wing with veins 4, 5 widely separated at origin .... EUDEMUS, p. 378.
  b^{9}. Hind wing with veins 6, 7 from cell, rarely very shortly stalked.
    a^{10}. Hind wing with veins 3, 4 stalked.
      a^{11}. Fore wing with vein 10 stalked with 7, 8, 9 .... HELIURA, p. 482.
      b^{11}. Fore wing with vein 10 from the cell.
        a^{12}. Fore wing with vein 6 from angle of cell .... ACLYTIA, p. 455.
        b^{12}. Fore wing with vein 6 from below angle of cell .... PATRELIURA, p. 413.
    b^{10}. Hind wing with veins 3, 4 from cell, rarely very shortly stalked.
      a^{11}. Abdomen dorsally clothed with rough hair at base.
        a^{12}. Fore wing with veins 4, 5 approximated for some distance .... PTERYGOPTERUS, [p. 383.
        b^{12}. Fore wing with veins 4, 5 not approximated.
          a^{13}. Fore wing with vein 6 from the angle of cell.
            a^{14}. Hind wing with vein 2 from middle of cell, which is about two-thirds of wing .... EPISCEPSIS, p. 384.

b^{14}. Hind wing with vein 2 from towards angle of cell, which is about three-fourths of wing, the costa angled at middle .... Procalypta, p. 459.

b^{13}. Fore wing with vein 6 from well below angle of cell .... Trichodesma, p. 451.

b^{11}. Abdomen smoothly scaled.

a^{12}. Hind wing with vein 2 from towards angle of cell .... Hypocladia, p. 362.

b^{12}. Hind wing with vein 2 from long before angle of cell .. .. Cyanopepla, p. 439.

b^{7}. Palpi with the 3rd joint porrect.

a^{8}. Fore wing with vein 6 from angle of cell.

a^{9}. Proboscis fully developed.

a^{10}. Palpi obliquely upturned, the 3rd joint porrect .... Philoros, p. 532.

b^{10}. Palpi porrect.

a^{11}. Palpi extending about the length of head.

a^{12}. Hind wing with vein 3 from cell.

a^{13}. Hind wing with vein 5 from angle of cell.

a^{14}. Hind wing with vein 7 from before angle of cell .... Dahana, p. 531.

b^{14}. Hind wing with vein 7 from angle of cell .... Phara, p. 473.

b^{13}. Hind wing with vein 5 from above angle of cell .... Epectaptera, p. 531.

b^{12}. Hind wing with veins 3, 4 strongly stalked, 5 from below middle of discocellulars .... Hyperphara, p. 468.

b^{11}. Palpi not extending beyond frons ... Melisa, p. 152.

b^{9}. Proboscis aborted .... Pseudapiconoma, p. 149.

b^{8}. Fore wing with vein 6 from well below angle of cell.

a^{9}. Fore wing with veins 4, 5 stalked; palpi downcurved .... Correbia, p. 514.

b^{9}. Fore wing with veins 4, 5 from cell; palpi oblique, the 3rd joint porrect.

a^{10}. Hind wing with vein 5 from, or from close to angle of cell.

a^{11}. Fore wing with vein 10 stalked with 7, 8, 9.

a^{12}. Fore wing narrow and lanceolate .. Scepsis, p. 520.

b^{12}. Fore wing broad and rounded ...... Ctenucha, p. 523.

b^{11}. Fore wing with vein 10 from the cell .... Uraga, p. 460.

b^{10}. Hind wing with vein 5 from below middle of discocellulars.

a^{11}. Hind wing with veins 3, 4 stalked... Microgiton, p. 467.

b^{11}. Hind wing with veins 3, 4 from cell.

a^{12}. Palpi oblique, the 3rd joint porrect; wings narrow; vein 3 of fore wing from before angle of cell .... Correbidia, p. 517.

b^{12}. Palpi porrect; wings broad; fore wing with vein 3 from angle of cell .... Coreura, p. 453.

Genus PSICHOTOE.

Type.
Psichotoë, Boisd. Mon. Zyg. p. 129 (1829)........................... *duvauceli*.
Cacosoma, Feld. Reis. Nov. p. 2 (1874), non descr................. *gnatula*.

Proboscis absent; palpi minute and porrect; frons hairy; antennæ biserrate; tibiæ with the spurs minute; abdomen with the distal segments dilated and hairy. Fore wing broad and rounded; vein 3 from well before angle of cell, 4, 5 from angle; 6 from below upper angle; 7, 8, 10 stalked, 9 absent. Hind wing with vein 2 from well before angle of cell, 3 and 5 from angle; 4 and 7 absent.

Sect. I. (*Psichotoe*). Fore wing with vein 11 stalked with 7, 8, and 10, 7 from 8 beyond 10.

1. Psichotoe duvauceli.

Psichotoë duvaucelii, Boisd. Mon. Zyg. p. 129, pl. 8. f. 5 (1829); Hmpsn. Moths Ind. i. p. 226; Kirby, Cat. Het. p. 111.

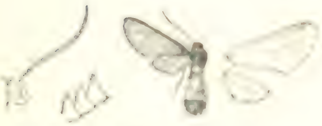


Fig. 9.
Psichotoe duvauceli, ♂. $\frac{1}{1}$.
(From 'Moths of India,' vol. i.)

Black; abdomen with two golden-yellow bands, at base and beyond middle. Wings semi-hyaline, sparsely clothed with black hair-like scales, the veins and margins darker.

Hab. Sind, Karachi; Calcutta (*W. S. Atkinson*); Assam; Burma (*E. Y. Watson*). *Exp.* 18–20 millim.

Sect. II. (*Cacosoma*). Fore wing with vein 11 from the cell and curved, 7 from 8 before 10.

*2. Psichotoë gnatula.

Naclia gnatula, Boisd. Voy. Delegorgue, ii. p. 596 (1847); Kirby, Cat. Het. p. 106.
Cacosoma naclioides, Feld. Reis. Nov. pl. 102. f. 13 (1874); Kirby, Cat. Het. p. 109.

♀. Black-brown; patagia yellow; abdomen dilated, with thick tufts of yellow hair from middle to extremity. Fore wing with elongate yellow patch below the cell; a spot in end of cell; a postmedial patch between veins 2 and 5. Hind wing yellow with the apical area blackish, narrowing to a point above tornus.

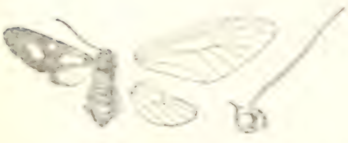


Fig. 10.—*Psichotoë gnatula*, ♀. $\frac{3}{2}$.

Hab. Natal; Cape Colony. *Exp.* 16 millim.

Genus CALLITOMIS.

Type.
Callitomis, Butl. Journ. Linn. Soc., Zool. xii. p. 351 (1876) ... *syntomoides.*

Proboscis well developed; palpi short, hairy, downturned; frons hairy; tibiæ with the spurs moderate. Fore wing with the apex rounded; vein 3 from well before angle of cell, 4, 5 from angle or shortly stalked; 6 from near upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from long before end of cell; 3, 5 from angle or shortly stalked; 4 and 7 absent; wings clothed with hair-like scales.

SECT. I. Antennæ serrate; fore wing narrow.

3. Callitomis fruhstorferi, n. sp.

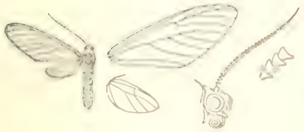


Fig. 11.
Callitomis fruhstorferi, ♂. $\frac{1}{1}$.

♂. Antennæ black with white tips; head ochreous; thorax fuscous; abdomen ochreous banded with fuscous; wings clothed with ochreous and fuscous hairs; the veins and margins narrowly black.

Hab. S. CELEBES, Bua-Kraeng, 5000 ft. (*Fruhstorfer*), 5 ♂ 2 ♀, type. *Exp.* 22 millim.

SECT. II. Antennæ simple and pubescent all over; fore wing broad.

A. Abdomen with a yellow band on each segment.	
a. Wings with hyaline yellow spots	*multifasciata.*
b. Wings without spots	*dohertyi.*
B. Abdomen with two yellow bands, at base and beyond middle	*syntomoides.*
C. Abdomen ochreous, without bands	*leucosoma.*

*4. Callitomis multifasciata. (Plate I. fig. 1.)

Callitomis multifasciata, Hmpsn. Moths Ind. i. p. 225 (1892).

Fuscous brown; vertex of head yellow; abdomen with a yellow band on each segment. Fore wing with hyaline yellow spot below base of cell; a spot in end of cell and one below origin of vein 2; postmedial spots in the interspaces between veins 3 and 5 and a spot above vein 6. Hind wing with a yellow patch at base below the cell and a postmedial spot between veins 2 and 3.

Hab. SIKHIM; ASSAM, Nága Hills. Type† in Coll. Elwes. *Exp.* 29 millim.

5. Callitomis dohertyi, n. sp. (Plate I. fig. 2.)

Fuscous brown; abdomen with almost conjoined yellow bands on each segment, the extremity fuscous; wings semihyaline and without markings.

Hab. JAVA, Mt. Arjuno, 3000–8000 ft. (*Doherty*), 4 ♂ ♀, types. *Exp.* 20–22 millim.

6. Callitomis syntomoides.

Callitomis syntomoides, Butl. Journ. Linn. Soc., Zool. xii. p. 351 (1876); Hmpsn. Moths Ind. i. p. 224; Kirby, Cat. Het. p. 99.

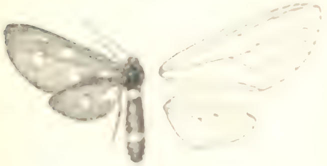


Fig. 12.
Callitomis syntomoides, ♂. ½.
(From Moths Ind. vol. i.)

Black with a purple gloss; abdomen with two orange-yellow bands, at base and beyond middle. Fore wing sometimes with traces of a yellow spot below base of cell; a (usually quadrate) spot in end of cell and bar-shaped mark below origin of vein 2; two small spots in the interspaces between veins 3 and 5. Hind wing sometimes with a yellow spot below base of cell.

Ab. 1. Browner and smaller; fore wing with postmedial yellow spot below costa; hind wing often with a spot between veins 2 and 3. Murree.

Hab. KASHMIR, types Moore Coll.; N.W. HIMALAYAS, Murree (*H. C. Harford*). *Exp.* 24–34 millim.

7. Callitomis leucosoma. (Plate I. fig. 3.)

Callitomis leucosoma, Butl. Journ. Linn. Soc., Zool. xii. p. 351 (1876); Hmpsn. Moths Ind. i. p. 225; Kirby, Cat. Het. p. 99.

Head, thorax, and abdomen orange-yellow; antennæ brown; wings dull brown to fulvous brown; a hyaline yellow spot below base of cell; a small spot in end of cell; a bar-shaped mark or small spot below origin of vein 2; a small spot between veins 3 and 4, with a spot or speck above vein 4; the base of inner margin yellow. Hind wing with yellow patch below base of cell and postmedial spot between veins 2 and 3.

Hab. KASHMIR, Moore Coll., type. *Exp.* 28–30 millim.

Genus EUTOMIS.

Type.
Eutomis, Hubn. Verz. p. 122 (1827) .... *minceus*.

Proboscis well developed; palpi porrect, extending just beyond the frons, and hairy; frons, vertex of head and thorax, and especially the thorax below, very hairy; antennæ with short branches dilated distally; tibiæ with the spurs rather small. Fore wing with vein 3 from before angle of cell; 4, 5* from angle; 6 from below upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the costa arched at middle; veins 3, 4, and 7 absent.

8. Eutomis minceus.

Sphinx minceus, Stoll, Pap. Exot. iv. pl. 347. A (1782); Kirby, Cat. Het. p. 100.

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* One specimen has vein 5 of each wing bifurcate towards margin.

Black shot with metallic blue; gulæ, patagia, and sides of thorax with white patches; abdomen shot with metallic green, the first four segments fringed with white scales. Fore wing with white basal point; quadrate spots below base and in end of cell; an oblique patch below vein 2, a small spot above 6, and two spots between veins 3 and 5. Hind wing with white patch below the cell and spot between veins 2 and 5.

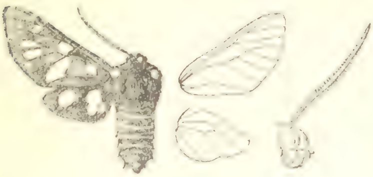

Fig. 13.—*Eutomis minceus*, ♂. $\frac{1}{1}$.

Hab. Cape Colony, five specimens (*Trimen*). *Exp.* 42 millim.

Genus CERYX.

	Type.
Ceryx, Wllgrn. Wien. Ent. Mon. vii. p. 140 (1863)	*anthraciformis.*
Agaphthora, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 774 (1886)	*melanora.*
Syntomoides, Hmpsn. Moths Ind. i. p. 209 (1892)	*imaon.*

Proboscis well developed; palpi porrect and not extending beyond the frons; mid and hind tibiæ with minute terminal pairs of spurs, hind tibiæ rarely with two pairs. Fore wing with vein 5 curved; 6 from, or from below upper angle; 7, 8, 9, 10, 11 stalked*. Hind wing with vein 2 from well before angle of cell; 3, 4, and 7 absent.

Sect. I. Fore wing with veins 4, 5 on a long stalk; 3 from near angle of cell.

9. Ceryx pleurosticta, n. sp.

♀. Black-brown; antennæ white at tips; frons yellowish white; spots above eyes, tegulæ, patches on patagia, meso- and metathorax, pectus, and coxæ yellow; tarsi with the 1st joint white; abdomen with dorsal yellow patch on 1st segment and lateral patches on the next five segments; the ventral surface yellow. Fore wing with two yellow points at base; a hyaline spot below base of cell, a quadrate patch below origin of vein 2, a small spot in end of cell, and spots above vein 6 and between veins 3 and 5. Hind wing with hyaline patch below the cell and spot between veins 2 and 5; the hyaline markings of both wings tinged and slightly edged with yellow.

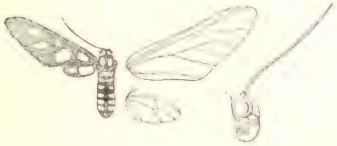

Fig. 14.—*Ceryx pleurosticta*, ♀. $\frac{1}{1}$.

Hab. Borneo, Sandakan (*Pryer*), 1 ♀ type; Labuan. *Exp.* 30 millim.

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* 9 usually absent in *albimacula*.

SECT. II. Fore wing with veins 4, 5 from cell or very shortly stalked, 3 from well before angle.

A. Antennæ of male bipectinate with short branches dilated at extremity, of female serrate.
  a. Abdomen with each segment edged with yellow.
    a¹. Wings with the markings orange ………………… flaviplagia.
    b¹. Wings with the markings hyaline ……………… claremonti.
  b. Abdomen of male with yellow bands on 1st and [illegible] ……… [illegible]
  c. Abdomen of male with basal yellow band only ……… ignorea.

10. Ceryx flaviplagia, n. sp. (Plate I. fig. 4.)

♂. Black; antennæ white at tips; frons and tegulæ orange; patagia and vertex of thorax striped with orange; metathorax with an orange patch; thorax with lateral orange patches; coxæ and hind femora yellowish white; abdomen with the segments fringed with orange, almost forming spots on dorsum. Fore wing with wedge-shaped orange patch below base of cell, and another in end of it; an oblique patch below vein 2, an elongate spot above vein 6, and two spots between veins 3 and 5. Hind wing with elongate yellow spot below the cell and a spot between veins 2 and 5.

The spots in and beyond end of cell of fore wing sometimes hyaline with orange edges.

Hab. PHILIPPINES, Mindanao, 2 ♂ (*Semper*), types. *Exp.* 30 millim.

11. Ceryx claremonti. (Plate I. fig. 5.)

Syntomis claremonti, Heyl. C. R. Soc. Ent. Belg. xxxiv. p. xvi (1890); Kirby, Cat. Het. p. 96.

♂. Black; antennæ white at tips, the branches very short; frons, vertex of head, patagia, metathorax, and patches on pectus and legs yellow; abdomen with a yellow band on each segment and the extremity yellow; wings hyaline, the veins and margins black. Fore wing with discoidal black patch and the interspace above vein 5 black; the terminal band expanding towards apex and between veins 2 and 3.

♀ with the bands on abdomen interrupted subdorsally, the hyaline area on hind wing reduced.

Hab. SUMATRA (*Buxton*), 1 ♀; JAVA, 1 ♂ 1 ♀. *Exp.*, ♂ 20-26, ♀ 34 millim.

12. Ceryx diptera.

Zygæna diptera, Fabr. Syst. Ent. p. 555 (1775); Kirby, Cat. Het. p. 103.
Sphinx aterrens, Stoll, Pap. Exot. iv. p. 240, pl. 400. A (1782); Hmpsn. Moths Ind. i. p. 223; Kirby, Cat. Het. p. 104.
Syntomis incipiens, Wlk. xxxi. 68 (1864); Hmpsn. Moths Ind. i. p. 211; Kirby, Cat. Het. p. 111.
Psychotoe brachypecten, Hmpsn. Ill. Het. ix. p. 61, pl. 157. f. 23 (1893); id. Moths Ind. i. p. 211.

♂. Black; frons yellow, yellowish or white; collar fringed with yellow ; patagia with yellow spots ; abdomen with yellow bands on 1st and penultimate segments. Fore wing with quadrate hyaline spots below base and a larger one below end of cell ; a spot in end of cell, a postmedial spot below costa, and two streaks in the interspaces between veins 3 and 5. Hind wing with hyaline patch below the cell and spot between bases of veins 2 and 5.

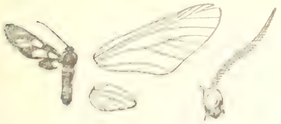

Fig. 15.—*Ceryx diptera*, ♂. 1/1.

♀ with the basal band only on abdomen, which is dilated, and with the anal tuft grey.

Ab. 1. *brachypecten* : fore wing with the spots below the cell conjoined.

Hab. S. INDIA, Coimbatore (*J. Walhouse*), type *incipiens* ; CEYLON (*E. E. Green*, *Yerbury*), type *brachypecten*. *Exp.* 14–16 millim. Type in Mus. Copenhagen examined by Dr. Aurivillius.

13. Ceryx ginorea.

Eressa ginorea, Swinh. A. M. N. H. (6) xiv. p. 441 (1894) ; id. Trans. Ent. Soc. 1895, pl. 1. f. 8 ; Hmpsn. Moths Ind. iv. p. 465.

♂. Black ; abdomen with orange band on 1st segment. Fore wing with large wedge-shaped hyaline spot in end of cell ; an elongate patch below cell and vein 2, indented at basal end ; a smaller spot between veins 2 and 3 ; a postmedial spot below costa, an elongate spot below vein 7, and submarginal spots in the interspaces between veins 3 and 5. Hind wing with small hyaline spot below origin of vein 2.

Hab. ASSAM, Khási Hills, type. *Exp.* 22 millim.

B. (*Ceryx*). Antennæ simple and dilated from middle to near extremity.

*14. Ceryx anthraciformis.

Naclia anthraciformis, Wallengr. Wien. Ent. Mon. iv. p. 40 (1860) ; Kirby, Cat. Het. p. 109.

Naclia fuscicornis, Wallengr. Wien. Ent. Mon. iv. p. 40 (1860) ; Kirby, Cat. Het. p. 109.

Naclia pygmula, Oberth. Ét. Ent. iii. p. 33, pl. 3. f. 6 (1878) ; Kirby, Cat. Het. p. 106.

♀. Dark brown ; antennæ white at tips ; patagia orange ; abdomen with dorsal, lateral, and ventral series of orange spots ; the anal tufts grey. Fore wing with some orange scales on edges of hyaline patches, especially the subapical ; a small quadrate spot in end of cell ; an elongate patch from below middle of cell to below middle of vein 2 ; a patch between veins 3 and 4, with an

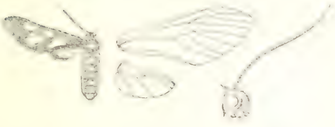

Fig. 16.—*Ceryx anthraciformis*, ♀. 1/1.

elongate spot above 4, a spot above 6, and a small orange streak above 7. Hind wing with large hyaline patch below cell and between veins 2 and 5, leaving the costal and terminal areas brown, the latter expanding towards apex.

♂. Fore wing with smaller hyaline spot in cell and larger streak above vein 7.

Hab. Cape Colony. *Exp.* 24 millim. Type ♀ *anthraciformis*, examined by Dr. Aurivillius; type ♂ ♀ *fuscicornis* in Mus. Stockholm.

C. Antennæ of male minutely serrate or simple, and not dilated at middle.
  a. (*Agaphthora*). Fore tibiæ and tarsi of male thickly clothed with rough hair.
    a^1. Abdomen with six complete orange bands .... *sphenodes*.
    b^1. Abdomen with six orange bands incomplete dorsally; hind wing with orange patch on inner area .... *ampla*.
    c^1. Abdomen with lateral series of orange spots; hind wing without orange patch.
      a^2. Tegulæ and fore coxæ orange.............. .... *formicina*.
      b^2. Tegulæ and fore coxæ black.
        a^3. Frons with orange patch; abdomen with subdorsal series of orange spots .... *guttulosa*.
        b^3. Frons with greyish patch.
          a^4. Abdomen with subdorsal series of points .... .. *puncta*.
          b^4. Abdomen without subdorsal series of points... *evar*.

15. Ceryx sphenodes. (Plate I. fig. 6.)

Agaphthora sphenodes, Meyr. P. Linn. Soc. N.S.W. (2) i. p. 774 (1886); Kirby, Cat. Het. p. 102.

Black; head orange, palpi and antennæ black; tegulæ and patagia mostly orange; metathorax and fore legs with orange patches; abdomen with six orange bands. Fore wing with wedge-shaped hyaline patch in cell, an elongate curved patch below the cell with some orange at its base; elongate spots between veins 3 and 5 and above veins 6 and 7. Hind wing with hyaline patch below the cell and between veins 2 and 5, usually with more or less orange on its inner edge.

Hab. New Guinea, 1 ♂; Queensland, 1 ♀, type in Mus. Sydney Univ. *Exp.* 30 millim.

*16. Ceryx ampla. (Plate I. fig. 7.)

Syntomis ampla, Wlk. xxxi. 76 (1864); Kirby, Cat. Het. p. 102.

Black; frons, tegulæ, patagia, and patches on metathorax, pectus, and fore coxæ orange; abdomen with lateral and ventral orange bands on first six segments not meeting on dorsum. Fore wing with slight orange streaks below base of cell and vein 1; a large wedge-shaped hyaline patch in cell; an elongate patch below the cell and vein 2 extending nearly to termen, with a slight postmedial streak below vein 1; elongate spots between veins 3 and 5 and above veins 6 and 7. Hind wing with orange patch on basal inner area, with hyaline spot on its outer edge; a large triangular hyaline spot between veins 2 and 5.

Hab. Aru (*Wallace*), type † ♀ in Mus. Oxon., ♂ in Coll. Staudinger. *Exp.* 34 millim.

17. Ceryx formicina.

Syntomis formicina, Swinh. Cat. Het. Mus. Oxon. p. 47 (1892).

Black; frons, tegulæ, patches on shoulders, metathorax, pectus, and fore coxæ orange-yellow; abdomen with subdorsal yellow points on 1st segment and large subdorsal and sublateral spots on the next five segments. Fore wing with large wedge-shaped hyaline patch in cell; an elongate patch below the cell and vein 2; elongate spots between veins 3 and 5 and above 6 and 7. Hind wing with hyaline spots below the cell and between veins 2 and 5.

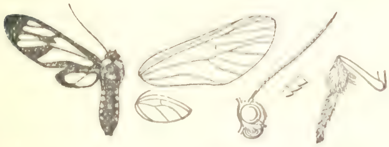

Fig. 17.—*Ceryx formicina*, ♂. $\frac{1}{1}$.

Fore wing sometimes with veins 4, 5 shortly stalked.

Hab. New Guinea (*Wallace*), 2 ♀, type † in Mus. Oxon.; Kapaur (*Doherty*), 1 ♂, 2 ♀. *Exp.* 30 millim.

18. Ceryx guttulosa. (Plate I. fig. 8.)

Syntomis guttulosa, Wlk. xxxi. 73 (1864); Kirby, Cat. Het. p. 102.
Agaphthora melanora, Meyr. Pr. Linn. Soc. N. S. W. (2) i. p. 774 (1886); Kirby, Cat. Het. p. 102.
? *Syntomis metan*, Pag. Jahrb. Nass. Ver. xxxix. p. 119 (1886); Kirby, Cat. Het. p. 102.

Black; frons, shoulders, and metathorax with orange patches; abdomen with lateral and sublateral series of orange spots. Fore wing with large wedge-shaped hyaline patch in cell; an elongate patch below the cell and vein 2; elongate spots between veins 3 and 5 and above veins 6 and 7. Hind wing with hyaline patches below the cell and vein 2 and between veins 2 and 5.

Hab. Aru (*Wallace*), 1 ♀, type † in Mus. Oxon.; Ké Islands, 1 ♂, 1 ♀; Queensland, Cape York. *Exp.* 30 millim.

*19. Ceryx puncta. (Plate I. fig. 9.)

Agaphthora puncta, Druce, A. M. N. H. (7) i. p. 147 (1898).

♂. Black; frons and patches at base of patagia greyish; abdomen with subdorsal and lateral series of greyish points and short paired ventral bands. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell expanding below base of vein 2, and elongate spots above veins 3, 4, 6, and 7. Hind wing with rounded hyaline spot below the cell.

Hab. New Guinea, Humboldt Bay (*Doherty*). *Exp.* 32 millim. Type † in Coll. Druce.

*20. Ceryx evar. (Plate I. fig. 10.)

Syntomis evar, Pag. Jahrb. Nass. Ver. xxxix. p. 119 (1886); Kirby, Cat. Het. p. 92.

♂. Black; frons greyish; shoulders with orange spots; abdomen with four orange spots diminishing distally. Fore wing with wedge-shaped hyaline patch in cell; an elongate curved patch below the cell; elongate spots between veins 3 and 5 and above veins 6 and 7. Hind wing with hyaline patch below the cell and between veins 2 and 5.

Fore wing with veins 4, 5 very shortly stalked.

Hab. Amboina, 1 ♂, Coll. Staudinger; Aru. *Exp.* 30 millim.

b. (*Syntomides*). Fore legs of male normal.
*a*¹. Abdomen with yellow bands.
*a*². Abdomen with eight bands in ♂, seven in ♀; fore and hind wings with the base yellow.
*a*³. Fore wing with yellow patch above vein 6 .... *decreta.*
*b*³. Fore wing without yellow patch above vein 6 .... *flavibasis.*
*b*². Abdomen with seven bands in ♂, six in ♀.
*a*³. Frons white, tegulæ and patagia black .... *cherra.*
*b*³. Frons, tegulæ, and patagia with orange patches.
*a*⁴. Fore wing with black bar across submedian interspace, hind wing with orange patch on inner area .... [illegible]
*b*⁴. Fore wing with no black bar across submedian interspace, hind wing without orange patch on inner area .... *exapta.*
*c*². Abdomen with five bands .... *hyalina.*
*d*². Abdomen with bands on 4th, 5th, and 6th segments. *resecta.*
*e*². Abdomen with two bands.
*a*³. Abdomen with lateral yellow spots .... *semicincta.*
*b*³. Abdomen without lateral yellow spots.
*a*⁴. Hind wing with narrow terminal black band .. *godarti.*
*b*⁴. Hind wing with broad terminal black band extending nearly to cell .... *imaon.*
*f*². Abdomen with dorsal orange spot and lateral bands on 4th segment .... *choa.*
*b*¹. Abdomen with white basal and subterminal bands.
*a*². Fore wing with curved hyaline streak below the cell. *toxotes.*
*b*². Fore wing with quadrate or elongate patch below the cell.
*a*³. Abdomen with the basal band incomplete above... *transitiva.*
*b*³. Abdomen with the basal band complete above.
*a*⁴. Patagia without white patches .... *albimacula.*
*b*⁴. Patagia with white patches .... *classon.*
*c*¹. Abdomen with small dorsal white spot at base.
*a*². Wings with large hyaline patches .... *seminigra.*
*b*². Wings with small hyaline spots .... *longipes.*
*d*¹. Abdomen without bands.
*a*². Abdomen blue-black; fore wing with hyaline patch above vein 2 .... [illegible]
*b*². Abdomen metallic green; fore wing without hyaline patch above vein 2 .... *semihyalina.*

21. **Ceryx decorata.** (Plate I. fig. 11.)

Syntomis decorata, Wlk. Journ. Linn. Soc., Zool. vi. p. 89 (1862); Kirby, Cat. Het. p. 96.
Syntomis florina, Butl. Journ. Linn. Soc., Zool. xii. p. 350 (1876); Kirby, Cat. Het. p. 96.

♀. Black-brown; head, thorax, and patagia yellow; thorax with yellow patches; legs marked with yellow, 1st joint of tarsi white; abdomen with yellow bands on each segment. Fore wing with the basal area yellow, the costa and veins crossing it brown; a small hyaline speck below base of cell; a large hyaline patch in end of cell and oblique yellow-edged patch below vein 2; an elongate yellow spot above vein 6, with small spot above 7; a small hyaline spot above vein 2 and two spots between veins 3 and 5. Hind wing with yellow patch below the cell and hyaline spot between veins 2 and 5.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀, type *florina*. *Exp.* 28 millim.

22. **Ceryx flavibasis**, n. sp. (Plate I. fig. 12.)

Head, thorax, and abdomen black; antennæ white at tips; frons, tegulæ, patches on patagia, meso- and metathorax, and coxæ yellow; tarsi with the 1st joint white; abdomen with eight yellow bands in male, seven in female. Fore wing with the base yellow and a slight yellow streak below costa; a wedge-shaped hyaline patch in cell; an elongate patch below the cell extending nearly to termen, a spot above base of vein 2, elongate spots above veins 3, 4, 6, and 7. Hind wing with yellow patch below base of cell and hyaline spot between veins 2 and 5.

Hab. Perak (*Hartert*), 1 ♀ type; Sumatra, 1 ♂ in Coll. Staudinger. *Exp.* 26 millim.

23. **Ceryx cherra.** (Plate I. fig. 13.)

Syntomis cherra, Moore, Lep. Atk. p. 12 (1879); Hmpsn. Moths Ind. i. p. 220; Kirby, Cat. Het. p. 97.
Syntomoides quisqualis, Swinh. A. M. N. H. (6) xiv. p. 441 (1894); Hmpsn. Moths Ind. iv. p. 465.

Black; frons yellowish white; antennæ white at extremity; meso- and metathorax with orange patches; abdomen with seven deep orange bands in male, six in female; the extremity orange. Fore wing with a small orange mark at base; a large elongate hyaline patch below the cell, sometimes divided by a black bar; a wedge-shaped hyaline patch in cell, an elongate spot below vein 7, and two spots in the interspaces between veins 3 and 5. Hind wing with large hyaline patch below the cell, extending between veins 2 and 5 and just into the cell, leaving the costal area and a marginal band tapering to tornus black.

Hab. Assam, Khási Hills. The types of *quisqualis*, ♂ ♀ and var.; type † in Coll. Staudinger. *Exp.* 36 millim.

*24. Ceryx fata. (Plate I. fig. 14.)

Syntomis fata, Swinh. Cat. Het. Mus. Oxon. p. 48 (1892).

♀. Black; frons, tegulæ, and patches on patagia, thorax, pectus, and fore coxæ orange; tarsi with the 1st joint white; abdomen with orange bands on the first six segments. Fore wing with a few orange scales at base; a hyaline spot below base of cell; a wedge-shaped patch in cell; an elongate patch below middle of cell and vein 2, and elongate spots between veins 3 and 5 extending almost to termen; a small round spot between veins 2 and 3; an elongate patch above vein 6 and spot above 7. Hind wing with orange patch at base of inner area; a hyaline spot below the cell confluent with a spot between veins 2 and 5.

Hab. BORNEO, 1 ; type † in Mus. Oxon. *Exp.* 28 millim.

Subsp. 1. ♀. Fore wing without the spot above vein 2; hind wing with vein 3 from 5 near termen.—JAVA. Coll. Staudinger.

25. Ceryx exapta. (Plate I. fig. 15.)

Syntomis exapta, Swinh. Cat. Het. Mus. Oxon. p. 48 (1892).

Black; frons, tegulæ, and patches on patagia, thorax, and legs orange; abdomen with seven orange bands in male, six in female. Fore wing with hyaline streak below base of costa; a wedge-shaped patch in cell; an elongate patch below the cell; a spot above vein 2; elongate spots above veins 3, 4, 6, and 7, and a minute spot above vein 5. Hind wing with hyaline patch below the cell confluent with a patch between veins 2 and 5.

Hab. SAMBAWA (*Doherty*), 1 ♂ 1 ♀; FLORES (*Wallace*); LOMBOK (*Fruhstorfer*). *Exp.*, ♂ 24, ♀ 30 millim. Type † from Flores in Mus. Oxon.

26. Ceryx hyalina.

Syntomis hyalina, Moore, Lep. Atk. p. 13 (1879); Hmpsn. Moths Ind. i. p. 211; Kirby, Cat. Het. p. 96.

Syntomis volans, Swinh. Trans. Ent. Soc. 1890, p. 173, pl. 6. f. 6; Hmpsn. Moths Ind. i. p. 211; Kirby, Cat. Het. p. 95.

♀. Head, thorax, and abdomen black; frons white; antennæ white at tips; abdomen with five orange bands, the terminal segments steel-blue. Fore wing hyaline, the veins black; the margins black, broadest at apex and middle of inner margin. Hind wing hyaline, the veins black; a terminal black band running inwards on vein 2; inner margin yellow.

Hab. SIKHIM; ASSAM, Nága Hills; BURMA, Karen Hills, type *volans*. *Exp.* 30–40 millim. Type † Coll. Staudinger.

*27. Ceryx resecta.

Syntomis resecta, Herr.-Schäff. Aussereur. Schmett. f. 269 (1855); Kirby, Cat. Het. p. 94.

♂. Black tinged with dark green; abdomen with yellow segmental lines on 4th, 5th, and 6th segments. Fore wing with small hyaline spot below base of cell; a transverse linear spot below base of vein 2; a quadrate spot in end of cell; spots between veins 3 and 5, and a small spot above 6. Hind wing with small spot below the cell and spot between veins 2 and 5.

Hab. S. Africa. *Exp.* 34 millim. 1 ♂ type † in Coll. Staudinger; no trace of the yellow bands on abdomen is to be seen, but it is much rubbed.

28. Ceryx semicincta. (Plate I. fig. 16.)

Syntomoides semicincta, Hmpsn. Trans. Ent. Soc. 1895, p. 282; and Moths Ind. iv. p. 465.

♂. Black shot with green; frons dirty white or yellow; antennæ white at tips; tegulæ with orange patches; tarsi with the 1st joint white; abdomen with basal orange band, sometimes incomplete above; lateral yellow spots on medial segments and band on 5th segment. Fore wing with wedge-shaped hyaline patch in cell; a large elongate patch below the cell and vein 2; and six patches in the interspaces of outer area, the patch between veins 5 and 6 narrow and lanceolate. Hind wing hyaline; the veins and margins black.

Ab. 1. Fore wing with elliptical spot in end of cell; the spots above veins 2 and 7 absent; the spots above veins 3, 4, and 7 small, round, and placed towards termen.—Malacca. Coll. Staudinger.

Ab. 2. Abdomen with the 4th segment sometimes fringed with orange; fore wing with the spots in cell quadrate, the spots above veins 2 and 7 absent in male, much reduced in female, the streak above vein 5 absent or minute.—Borneo, Kina Balu. Coll. Staudinger.

Hab. Tenasserim, Donaut Hills, type ♀ (*L. de Nicéville*); Malacca; Borneo. *Exp.* 42 millim.

29. Ceryx godarti.

Syntomis godarti, Boisd. Mon. Zyg. p. 115, pl. 7. f. 3 (1829); Hmpsn. Moths Ind. i. p. 210; Kirby, Cat. Het. p. 92.
Syntomis libera, Wlk. xxxi. 78 (1864); Kirby, Cat. Het. p. 92.
Syntomis fytchei, Moore, P. Z. S. 1871, p. 246, pl. 18. f. 3; Kirby, Cat. Het. p. 91.
Syntomis cupreipennis, Butl. Journ. Linn. Soc., Zool. xii. p. 347 (1876); Kirby, Cat. Het. p. 92.

Frons yellowish or dirty white; collar orange; metathorax with an orange band; tarsi banded with white; abdomen with orange bands at base and beyond middle. Fore wing black, with large wedge-shaped hyaline patch in cell; an elongate patch below cell and vein 2; large spots in the interspaces between veins 2 and 5; an elongate spot above 6 and small spot above 7. Hind wing hyaline, the veins, costa, and terminal band black, the last narrow at apex, then tapering to a fine line; inner margin yellow.

Hab. Sikhim; Assam; Calcutta, type *cupreipennis*; S. India; Ceylon; Burma (*E. Y. Watson, L. de Nicéville*); Yunnan, type *fytchei*; Malacca; Sumatra. *Exp.* 26–32 millim. Type † *libera* in Mus. Oxon.

It may be an extreme form of *imaon*.

30. Ceryx imaon.

Sphinx imaon, Cram. Pap. Exot. iii. p. 94, pl 248. E (1780); Hmpsn. Moths Ind. i. p 240; Wlk. i. 127; Kirby, Cat. Het. p 92.

Syntomis fusiformis, Wlk. vii. 1595 (1856); Kirby, Cat. Het. p. 102.

Syntomis approximata, Wlk. xxxi. 79 (1864); Kirby, Cat. Het. p. 92.

Syntomis sargania, Butl. Trans. Ent. Soc. 1879, p. 4; Kirby, Cat. Het. p. 92

Syntomis artina, Butl. Journ. Linn. Soc., Zool. xii. p. 347 (1876); Kirby, Cat. Het. p. 92.

Syntomis mota, Swinh. Trans. Ent. Soc. 1891, p. 134.

Black; frons yellowish or dirty white; antennæ white at tips; collar orange; tarsi banded with white; abdomen with two orange bands, at base and beyond middle. Fore wing with wedge-shaped hyaline patch in end of cell; an elongate patch below the cell and vein 2; a spot between veins 2 and 3 and larger spots in the interspaces between veins 3 and 5; an elongate spot below vein 7 with smaller spot above it. Hind wing with hyaline spot below cell, in end of cell, and usually between veins 2 and 5, leaving a large black apical area running obliquely across the wing; inner margin yellow.

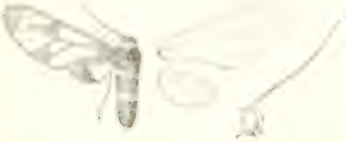

Fig. 18.—*Ceryx imaon*, ♂. ½.
(From Moths Ind. vol. i.)

Ab. 1. *sargania*, has an elongate hyaline streak between veins 5 and 6 of fore wing, sometimes reduced to a small spot.

Ab. 2. *artina*, the hyaline spot between veins 2 and 5 of hind wing is large, leaving, however, an oblique apical black area.

Ab. 3. *mota*, this spot is absent, and in other specimens the spot in the cell is reduced or absent.

Ab. 4. A specimen from Ceylon has all the spots reduced and the spot between veins 2 and 3 absent.

Hab. Hongkong (*Harrington*); Kangra (*J. Hocking*); Sikhim; Khásis; Calcutta (*J. Rothney*), type *artina*; Cachar (*W. Grant*), type *sargania*; Bombay; Nilgiris (*Hampson*), type *mota*; Ceylon (*E. E. Green, J. Yerbury*); Burma, Karen Hills (*E. Y. Watson*), Tenasserim (*L. de Nicéville*). *Exp.* 24–42 millim.

*31. **Ceryx chea.** (Plate I. fig. 17.)

Syntomis chea, Druce, A. M. N. H. (6) xv. p. 43 (1895).

♀. Black; abdomen with dorsal orange spot and lateral bands on 4th segment. Fore wing with small hyaline spot below base of cell; an oblique wedge-shaped patch below vein 2; a quadrate patch in end of cell; elongate spots above veins 3, 4, and 6, and traces of a point above 7. Hind wing with small hyaline spots below base of cell and between veins 2 and 5.

Hab. PHILIPPINES, Mindanao (*Semper*). *Exp.* 40 millim. 1 ♀ type † in Coll. Druce.

32. **Ceryx toxotes**, n. sp. (Plate I. fig. 19.)

♂. Black; frons, tips of antennæ, and paired spots on patagia white; abdomen with narrow basal and subterminal white bands and ventral bands on the intermediate segments. Fore wing with curved elongate hyaline streak below the cell; a small quadrate spot in end of cell; a postmedial spot above vein 6 and two spots between veins 3 and 5, the lower larger. Hind wing with basal hyaline patch below the cell and large spot between veins 2 and 5.

Hab. CAPE COLONY, Annshaw (*Miss F. Barrett*), 1 ♂ type. *Exp.* 26 millim.

33. **Ceryx transitiva.** (Plate I. fig. 18.)

Syntomis transitiva, Wlk. Journ. Linn. Soc., Zool. vi. p. 89 (1862); Kirby, Cat. Het. p. 98.

Syntomis intermissa, Wlk. Journ. Linn. Soc., Zool. vi. p. 90 (1862); Kirby, Cat. Het. p. 98.

Syntomis basalis, Wlk. xxxi. 79 (1864); Kirby, Cat. Het. p. 91.

♂. Black; frons and tips of antennæ white; tegulæ, patagia, and pectus with white spots; tarsi with the 1st joint white; abdomen with white bands on 1st and 5th segments and lateral spots on the intermediate segments. Fore wing with wedge-shaped hyaline spot below cell and quadrate spot in end of cell; two spots between veins 3 and 5 and one above 6. Hind wing with hyaline spots below the cell and between veins 3 and 5.

Ab. 1. *basalis*, from Sumatra, with quadrate spot below cell of fore wing.

Ab. 2, from Perak and Sumatra, with additional spots above veins 2, 5, and 7 of fore wing, and all the markings larger.

Hab. MALACCA; SUMATRA, Tandjong Ning, 1 ♂ (*H. O. Forbes*); type † *basalis* in Mus. Oxon.; BORNEO, Sarawak (*Wallace*), 1 ♂ type † *transitiva* in Mus. Oxon. *Exp.* 30 millim.

34. **Ceryx albimacula.**

Syntomis albimacula, Wlk. i. 128 (1854); Butl. Ill. Het. i. p. 18, pl. 6. f. 9; Kirby, Cat. Het. p. 97.

Syntomis terminalis, Wlk. i. 130 (1854); Butl. Ill. Het. i. p. 17, pl. 7. f. 1; Kirby, Cat. Het. p. 97.

Syntomis macrospila, Wlk. xxxi. 67 (1864); Kirby, Cat. Het. p. 97.
Syntomis constricta, Butl. Ill. Het. i. p. 18, pl. 7. f. 6 (1877); Kirby, Cat. Het. p. 96.
Syntomis lengalea, Holland, Psyche, vi. p. 375 (1893).
Syntomis cybelistes, Holland, Psyche, vi. p. 393 (1893).
Syntomis hilda, Erhmann, Can. Ent. xxvi. p. 69 (1894).

Black shot with metallic blue and purple; frons without spot or with a small or large white spot; antennæ white at tips; pectus with white patches; abdomen with white bands on 1st and 5th segments and ventral bands, sometimes more or less obsolete, on the intermediate segments. Fore wing with elongate hyaline patch below the cell; a wedge-shaped patch in the cell; a spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline spot below the cell and a small spot between veins 2 and 5, leaving the apical area broadly black.

Ab. 1. Hind wing with the spot between veins 2 and 5 more extensive.

a. *terminalis*, frons without white spot.
b. *constricta*, frons with white spot.
c. *cybelistes*, fore wing with subapical white spot on termen.

Ab. 2. *lengalea*. Hind wing hyaline, with narrow terminal band diminishing from apex to vein 2; fore wing with subapical white spot on cilia.

Hab. W. AFRICA, Ogové R., types + *lengalea* ♂, *cybelistes* ♀, in Coll. Holland; SIERRA LEONE (*Morgan*, *Foxcroft*), types *albamacula* ♀, *macrospila* ♂; CONGO (*Curror*), types *terminalis* ♀ and *constricta* ♀. *Exp.* 32–36 millim.

35. **Ceryx elasson.** (Plate I. fig. 21.)

Syntomis elasson, Holland, Psyche, vi. p. 375 (1893).

Black; frons, tips of antennæ, and patches on patagia, pectus, and coxæ white; abdomen with white bands on 1st and 5th segments, the ventral surface with bands on 2nd, 3rd, and 4th segments. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell extending nearly to termen, and elongate spots between veins 3 and 5 and above 6. Hind wing with hyaline patch below the cell, conjoined to a spot between veins 2 and 5.

Hab. W. AFRICA, Ogové R., 1 ♀; CAMEROONS, 1 ♂. *Exp.* 26 millim. Type + in Coll. Holland.

*36. **Ceryx seminigra.** (Plate I. fig. 20.)

Syntomoides seminigra, Holland, Ent. News Philad. 1898, p. 11.

♂. Black tinged with cupreous green; frons white; pectus with white patches; hind femora white at extremity; abdomen with dorsal white spot on 1st segment and ventral bands on first two segments. Fore wing with wedge-shaped hyaline patch in cell; an oblique wedge-shaped patch from median nervure before middle of cell to near tornus, and elongate spots between veins 3 and 5 and above 6; cilia white at apex. Hind wing with large hyaline patch below the cell.

Antennæ minutely serrate.

Hab. CAMEROONS, Efulea. *Exp.* 28 millim. Type † in Coll. Holland.

37. **Ceryx longipes.**

Syntomis longipes, Herr.-Schäff. Aussereur. Schmett. f. 273 (1855); Kirby, Cat. Het. p. 98.
Syntomis caryocatactes, Wallengr. Wien. Ent. Mon. iv. p. 39 (1860); Kirby, Cat. Het. p. 94.

Black; frons and tips of antennæ white; patagia and 1st segment of abdomen with white spots, the latter with lateral and ventral series of spots. Fore wing with small hyaline spots below base of cell and vein 2 and spots in end of cell, above vein 6 and between veins 3 and 5; cilia white at apex. Hind wing with small hyaline spots below base of cell and between veins 2 and 5.

Hab. NATAL, Karkloof (*Marshall*), 2 ♂ 1 ♀. *Exp.* 30 millim. Type † in Coll. Staudinger, *caryocatactes* in Mus. Stockholm.

38. **Ceryx expandens.** (Plate I. fig. 22.)

Syntomis expandens, Wlk. Journ. Linn. Soc., Zool. vi. p. 91 (1862); Kirby, Cat. Het. p. 98.
Syntomoides inæqualis, Snell. Deutsche Ent. Zeit., Lep. viii. p. 129 (1895).

Black shot with purple; antennæ at tips and 1st joint of tarsi white. Fore wing with elongate milky hyaline patch below end of cell and vein 2; a wedge-shaped patch in end of cell; another above vein 2; a spot above vein 6, sometimes with a speck above 7; two spots between veins 2 and 5. Hind wing with large hyaline spot between veins 2 and 5, sometimes with slight streak below 2.

Ab. 1. *inæqualis*: hind wing hyaline, the veins and margins black, the terminal band expanding towards apex.

Hab. PERAK; SUMATRA; BORNEO, Sarawak (*Wallace*), 2 ♀ type. *Exp.* 32 millim. Type † *inæqualis* in Coll. Staudinger.

39. **Ceryx semihyalina.** (Plate I. fig. 23.)

Zygæna semihyalina, Kirby, A. M. N. H. (6) xviii. p. 379, pl. xix. f. 5.

♂. Head, thorax, and abdomen metallic green; wings black shot with purple. Fore wing with metallic green streak below base of costa; a large hyaline patch below the cell and vein 2; a wedge-shaped patch in cell; an elongate spot above vein 6 and two spots between veins 3 and 5; a terminal white spot below apex. Hind wing with hyaline patch below the cell confluent with a spot between veins 2 and 5.

Hab. BR. E. AFRICA, Port Alice; 1 ♂ (*Ansorge*), type. *Exp.* 32 millim.

Genus MYOPSYCHE, nov.

Type, *M. ochsenheimeri.*

Proboscis well developed; palpi short, porrect, and hardly reaching beyond the frons; antennæ of male pectinated; mid and hind tibiæ with the spurs minute. Fore wing narrow; veins 2 and 3 stalked or from a point; 4, 5 from a point; 6 from just above middle of discocellulars; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from well before angle of cell; 3, 5 from angle; 4 and 7 absent.

Sect. I. Fore wing with veins 2, 3 stalked.

A. Abdomen with the 2nd segment constricted, the 1st segment with lateral tufts of hair.

*10. Myopsyche cytogaster.

Syntomis cytogaster, Holland, Psyche, vi. p. 393 (1893).

♂. Black; frons and coxæ white; fore tibiæ and 1st joint of tarsi with some white; abdomen with white patch on 1st segment, the first three segments white below, the 4th segment with a fine white ring. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell extending almost to tornus, and elongate spots between veins 3 and 5 and above 6 and 7, leaving a triangular black patch on veins 2, 3, and a fascia between 5, 6, which are approximated. Hind wing hyaline, the veins and margins narrowly black, the apex more broadly so.

Fig. 19. *Myopsyche cytogaster*, ♂. ¾.

Hab. W. Africa, Talagouga (*Good*). *Exp.* 20 millim. Type ♂ in Coll. Holland.

B. Abdomen with the 2nd segment not constricted.
 a. Hind wing hyaline.
  Abdomen with white markings.
   Abdomen with white patch on 1st and band on [illegible] segment [illegible]
   *b*². Abdomen with three white spots on 1st segment and lateral spots on 4th, 5th, and 6th segments [illegible]
  *b*¹. Abdomen with orange markings.
   Abdomen with orange band on 1st segment, the lateral and ventral surfaces orange…… …… *xanthopleura.*
   *b*². Abdomen orange with subdorsal black patches on medial segments and the terminal segments black [illegible]
   *c*². Abdomen orange, with the terminal segments black [illegible]
 b. Hind wing orange [illegible]

41. Myopsyche miserabilis.

Syntomis miserabilis, Holland, Psyche, vi. p. 375 (1893).

♂. Black; frons, tips of antennæ, and patches on patagia and pectus white; 1st joint of tarsi white; abdomen with white patch at base and band on 5th segment, the ventral surface with bands on intermediate segments. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell extending nearly to termen, and elongate spots between veins 3 and 5 and above 6 and 7. Hind wing hyaline, the veins and margins narrowly black, the costa and apex rather broadly black.

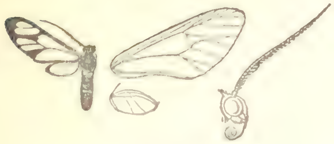

Fig. 20.
Myopsyche miserabilis, ♂. $\frac{1}{1}$.

Hab. W. Africa, Ogové R. (*Good*), 1 ♂. *Exp.* 24 millim. Type † in Coll. Holland.

*42. Myopsyche puncticincta. (Plate I. fig. 24.)

Syntomis puncticincta, Holland, Psyche, vi. p. 375 (1893).

♂. Black; antennæ at tips and patches on frons, patagia, and pectus white; tarsi with the 1st joint white; abdomen with dorsal and lateral white spots on 1st segment and lateral spots on 4th, 5th, and 6th segments; anal tuft orange; the ventral surface with five white bands. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell extending almost to termen, and elongate spots between veins 3 and 5 and above 6 and 7. Hind wing hyaline, the veins and margins narrowly black, the costa and apex more broadly black.

Hab. W. Africa, Ogové R. *Exp.* 28 millim. Type † in Coll. Holland.

*43. Myopsyche xanthopleura. (Plate I. fig. 25.)

Syntomoides xanthopleura, Holland, Ent. News Philad. 1898, p. 11.

♂. Black; antennæ white at tips; frons, gulæ, tegulæ, patagia, and pectus orange; thorax with some orange scales; abdomen with orange band on 1st segment, lateral orange fasciæ on 4th to terminal segments, which last is almost completely orange; ventral surface orange. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell extending almost to termen, and large spots between veins 3 and 5 and above 6 and 7. Hind wing hyaline, the veins and margins black, the costa and apex more broadly so.

Hab. W. Africa, Bule Country (*Good*). *Exp.* 32 millim. Type † in Coll. Holland.

44. Myopsyche notoplagia, n. sp. (Plate I. fig. 26.)

Head and thorax black; antennæ with the tips white; frons, tegulæ, and patagia orange; metathorax, pectus, and legs with orange patches; abdomen orange, with subdorsal black patches on

2nd to 4th segments, on the latter mixed with orange, the last three segments black; wings black. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell, with small tooth on its outer edge; elongate patches above veins 3, 4, 6, 7. Hind wing with medial hyaline patch extending from vein 5 to inner margin.

Hab. Sierra Leone; Gold Coast, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 30 millim.

45. Myopsyche ochsenheimeri.

Zygæna ochsenheimeri, Boisd. Mon. Zyg. p. 116, pl. 7. f. 4 (1829); Kirby, Cat. Het. p. 96.
Syntomis ponga, Plötz, Stett. Ent. Zeit. xli. p. 78 (1880); Kirby, Cat. Het. p. 103.

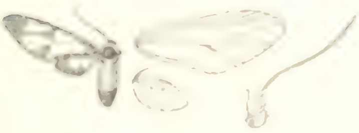

Fig. 21.
Myopsyche ochsenheimeri, ♀. ½.

Black; tegulæ and patagia, except at extremities, and a patch on metathorax orange; neck and lateral patches on thorax orange; fore and hind legs chiefly orange; abdomen orange, the two penultimate segments black. Fore wing with an orange spot at base and some orange scales below base of median nervure; an elongate hyaline patch below the cell; a wedge-shaped patch in the cell; an elongate hyaline spot above vein 6 and small spot above 7; two spots between veins 3 and 5. Hind wing with some orange scales on basal area and a hyaline patch below the cell and between veins 2 and 5.

Hab. Congo, 1 ♀ (*Curror*). *Exp.* 30 millim.

*46. Myopsyche blandina.

Naclia blandina, Oberth. Ét. Ent. xviii. p. 1, pl. 1. f. 7 (1893).

Head and thorax black-brown; antennæ whitish at tips; patagia orange; legs orange, the tarsi dark; abdomen orange, the 1st segment with fine dorsal black line, the following segments with large triangular patch ending on subterminal segment, the terminal segment dark; the ventral surface with fine dark sublateral streaks, the terminal segment sometimes dark with two or three orange points. Fore wing black, with large wedge-shaped hyaline patches in and below cell and elongate patches between veins 3 and 5 and above 6. Hind wing orange, the apical area broadly black, enclosing an orange spot beyond the cell and ending before tornus.

Hab. Madagascar, Diego Saurez. *Exp.* 34 millim.

This species is unknown to me.

Sect. II. Fore wing with veins 2 and 3 from a point.

A. Tegulæ orange; abdomen with dorsal orange stripe	*idda.*
B. Tegulæ and abdomen blue-black	*victorina.*
C. Tegulæ with white patches; abdomen with white lines on 1st and 5th segments	*elachista.*

*47. **Myopsyche idda.** (Plate I. fig. 27.)

Syntomis idda, Plötz, Stett. Ent. Zeit. 1880, p. 79; Kirby, Cat. Het. p. 105.

♀. Black-brown; palpi, frons, tegulæ, patagia, and metathorax orange; pectus and legs orange and brown; abdomen with dorsal, lateral, and ventral orange fasciæ formed by conjoined triangular spots and not reaching extremity. Fore wing with large wedge-shaped hyaline patch in cell; an elongate patch below the cell extending almost to termen, and elongate spots above veins 3, 4, 6, and 7. Hind wing with the base of costa tinged with orange; a hyaline patch below the cell and between veins 2 and 5.

Hab. Cameroons, in Mus. Stockholm. *Exp.* 26 millim.

*48. **Myopsyche victorina.**

Syntomis victorina, Plötz, Stett. Ent. Zeit. 1880, p. 78; Kirby, Cat. Het. p. 105.

♀. Head, thorax, and abdomen black suffused with metallic blue-green; antennæ white at tips; white points at base of palpi and behind antennæ; 1st joint of tarsi and hind coxæ white; abdomen with some white at base of ventral surface; wings hyaline, with the veins and margins narrowly black; the triangular interspace between veins 2 and 3 and tornus black; veins 5 and 6 approximated, and the interspace between them almost entirely black; a large apical black patch.

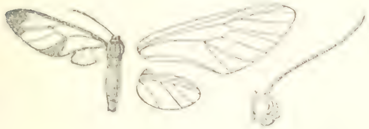

Fig. 22.—*Myopsyche victorina*, ♀. 1/1.

Plötz describes the male as having two narrow white bands on abdomen.

Hab. Cameroons, in Mus. Stockholm. *Exp.* 30 millim.

*49. **Myopsyche elachista.** (Plate I. fig. 28.)

Syntomis elachista, Holland, Psyche, vi. p. 375 (1893).

♀. Black; frons, patagia, and pectus with white patches; abdomen with narrow white bands on 1st and 5th segments, the ventral surface with three bands. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell extending almost to termen, and elongate spots between veins 3 and 5 and above 6; cilia white at apex. Hind wing with hyaline spots below cell and between veins 2 and 3.

Hab. W. AFRICA, Ogové R. *Exp.* 24 millim. Type † in Coll. Holland.

Genus STREPTOPHLEBIA, nov.

Type, *S. obliquistria.*

Proboscis well developed; palpi porrect, not reaching beyond the frons; antennæ ciliated; tibiæ with the spurs short. Fore wing of female with veins 1 and 2 much curved towards termen; 3 from well before angle of cell; 4, 5 strongly stalked; the discocellulars very short; vein 6 from long below angle of cell near 5, running obliquely to anastomose with the subcostals near apex; 7, 8, 9, 10, 11 stalked, curved round near apex, and 7, 8 given off at the point of anastomosis with 6; male with an elongate pouch-like fold on underside below the cell and vein 2 from base to middle, vein 1 being sinuous; a slight fold between veins 5 and 6, covered by a slight fringe of hair on upperside of vein 6, the upper part of cell open, and vein 6 not connected with subcostal nervure. Hind wing with vein 2 from long before angle of cell; 3 and 5 stalked; 4 and 7 absent.

50. Streptophlebia obliquistria, n. sp.

♂. Head, thorax, and abdomen black brown; tips of antennæ and frons yellowish white; patagia and pectus with yellow patches; abdomen with dorsal and lateral series of yellow spots, the two terminal segments crimson, with the anal tuft black; wings hyaline yellow, the veins and margins rather broadly black. Fore wing with orange mark at base of the pouch, which is black; an oblique black streak from discocellulars to apex between veins 5 and 6, the terminal band expanding at apex and between veins 2 and 3.

Fig. 23.—*Streptophlebia obliquistria*, ♂. 1/1.

♀ with slight fuscous mark above base of vein 2; the oblique streak expanding into a discoidal spot and connected with upper angle of cell by an oblique bar.

Hab. BORNEO, Kina Balu, 1 ♂ type, ♀ in Coll. Staudinger. *Exp.*, ♂ 30, ♀ 34 millim.

Genus THYLACOPTERA, nov.

Type, *T. albipuncta.*

Proboscis well developed; palpi porrect, not reaching beyond the frons; antennæ ciliated; tibiæ with the spurs short. Fore wing of female with vein 3 from near angle of cell; 4, 5 on a long stalk; 6 from upper angle; 7 and 11 stalked; 8, 9, 10 absent; male with an elongate fold below base of cell, developing into a large pouch at origin of vein 2 and extending to well beyond middle; vein 5 running to the apex, where it meets 7, with an elongate fold above it; vein 6 absent. Hind wing with vein 2 from well before angle of cell; 3 and 5 on a long stalk; 4 and 7 absent.

51. Thylacoptera albipuncta, n. sp.

♂. Black; antennæ at tips and frons white; patagia and metathorax with white spots; abdomen with dorsal and lateral series of white spots; lateral crimson spots on 6th segment and bands on 7th and 8th segments. Fore wing with hyaline streak in cell; a wedge-shaped patch below vein 1 and spot above it towards termen; a spot above base of vein 2; a wedge-shaped patch above 3 and small point above 4. Hind wing with hyaline patch in, below, and beyond cell.

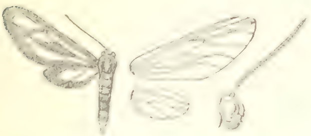
Fig. 24.
Thylacoptera albipuncta, ♂. ¹⁄₁.

♀. Fore wing with the hyaline patch below vein 1 reduced; an elongate streak below the cell and vein 2 reaching nearly to termen, no spot above vein 2; an elongate spot above 6.

Hab. Palawan, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 30 millim.

Genus TRICHÆTA.

	Type.
Trichæta, Swinh. Cat. Het. Mus. Oxon. p. 52 (1892)	*teneiformis.*

Proboscis well developed; palpi downcurved, and not reaching as far as frons. Fore wing with vein 3 from close to angle of cell; 4, 5 stalked; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from well before angle of cell; 3 and 5 from angle, or stalked; 4 and 7 absent.

Sect. I. Hind wing with veins 3, 5 on a long stalk.

A. Antennæ simple and dilated beyond middle; fore wing of male with a fold above vein 5, the termen deeply indented at the extremity.

52. Trichæta pterophorina.

Syntomis pterophorina, Mab. Bull. Soc. Ent. Fr. 1892, p. 139; Nov. Lep. pl. 21. f. 7.

♂. Black-brown; antennæ whitish at tips; tegulæ, patagia, metathorax, and pectus with dull orange patches; abdomen with dorsal orange-yellow stripe not reaching base, and conjoined on terminal segment to the lateral stripes; a ventral stripe formed of quadrate patches not reaching the base. Fore wing with small wedge-shaped semihyaline yellow spot in end of cell; an elongate spot below cell; a spot between veins 3, 4 extending just above 4, and a spot above 5, the last two with distinct yellow edges. Hind wing with yellowish hyaline patch below the cell and between veins 2 and 3, extending to inner margin.

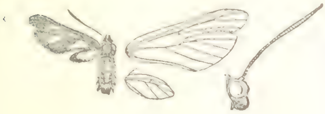
Fig. 25.
Trichæta pterophorina, ♂. ¹⁄₁.

♀. Fore wing with the spot in cell quadrate; the spot beyond extending more above vein 5, or with a series of spots between veins 7 and 2.

Hab. Natal (*Spiller*); Mashonaland, Salisbury (*Marshall*), 2 ♂. *Exp.* 20 millim. Type † in Coll. Staudinger.

B. Antennæ of male with cilia and bristles; fore wing normal.
  a. Wings orange, with the veins black .... *tigrina.*
  b. Wings black, with hyaline spots .... *elongimacula.*

53. Trichæta tigrina.

Syntomis tigrina, Wlk. xxxi. 71 (1864). Kirby, Cat. Het. p. 96.

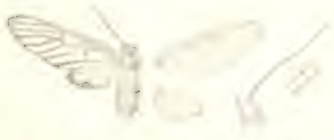

Fig. 26.—*Trichæta tigrina*, ♀. 1/1.

♀. Orange; antennæ, fringes of patagia, and segmental rings to abdomen black. Fore wing with the veins and margins narrowly black; a small black spot below middle of cell. Hind wing orange, with terminal black band expanding at apex and vein 2.

Hab. Cambodia (*Mouhot*), 2 ♀ types. *Exp.* 36 millim.

54. Trichæta elongimacula, n. sp. (Plate II. fig. 1.)

Black; antennæ white at tips; tarsi banded with white; frons, tegulæ, and spots on patagia and metathorax orange; abdomen with six orange bands, the last three almost conjoined in male. Fore wing with yellowish hyaline subbasal spot below cell; a triangular spot in end of cell; an elongate streak above vein 6; a spot between veins 3 and 5 and a spot below vein 2. Hind wing with yellowish hyaline patch below the cell extending nearly to tornus, and a large spot between veins 2 and 4.

Hab. Borneo, Pulo Laut (*Doherty*), type. *Exp.* 30 millim.

Sect. II. Hind wing with veins 3 and 5 from cell or shortly stalked.

A. Antennæ bipectinate, with very short branches, dilated distally; hind tibiæ with two pairs of spurs.
  a. Abdomen with lateral tufts of hair.
    a^1. Head and tegulæ black-brown; frons and patagia pale yellow .... *fulvescens.*
    b^1. Head, tegulæ, and patagia orange-yellow .... *bivittata.*

55. Trichæta fulvescens.

Syntomis fulvescens, Wlk. i. 132 (1854); Butl. Ill. Het. i. p. 17, pl. 7. f. 2; Kirby, Cat. Het. p. 105.
Thyretes caffraria, Herr.-Schäff. Aussereur. Schmett. i. f. 271 (1855).
Naclia thyretiformis, Wallengr. Wien. Ent. Mon. iv. p. 40 (1860); Kirby, Cat. Het. p. 108.

Syntomis molanna, Wallengr. Öfv. Vet.-Akad. Förh. xxxii. (1) p. 94 (1876).

Brown, with a golden tinge; frons and patagia pale yellow; metathorax banded with yellow; abdomen with dorsal and lateral series of conjoined orange-yellow spots, which meet towards extremity. Fore wing with wedge-shaped hyaline patch in end of cell and quadrate patch below the end; an elongate postmedial spot above vein 6 and two spots between veins 3 and 5. Hind wing with large hyaline patch below the cell and between veins 2 and 5, leaving the costal area brown, and a terminal band broad at costa, narrowing to tornus, and dentate at vein 2.

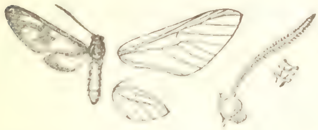

Fig. 27.—*Trichæta fulvescens*, ♂. 1/1.

Hab. Congo (*Curror*), type; Natal (*J. M. Hutchinson*, *J. V. Gooch*); Cape (*A. Smith*). *Exp.* 24–26 millim.

56. Trichæta bivittata. (Plate II. fig. 2.)

Syntomis bivittata, Wlk. xxxi. 66 (1864); Kirby, Cat. Het. p. 105.

♂. Black-brown; head, tegulæ, and patagia golden yellow; antennæ brown; metathorax with a yellow patch; abdomen with series of dorsal and lateral conjoined yellow spots meeting on penultimate segment and a patch on anal segment. Fore wing with wedge-shaped hyaline patch in end of cell and quadrate patch below the cell; an elongate postmedial spot above vein 6 and two spots between veins 3 and 5. Hind wing with large hyaline patch below the cell and between veins 2 and 5, leaving the costal area brown, and a terminal band broad at apex, narrowing to tornus and dentate at vein 2.

Hab. Sierra Leone, 2 ♂ types (*Mrs. Foxcroft*). *Exp.* 20 millim.

b. Abdomen smoothly scaled.
  a^1. Fore wing with six hyaline spots .... *vigorsi.*
  b^1. Fore wing with at most three patches.
    a^2. Fore wing with the markings hyaline white.
      a^3. Frons and patagia white; abdomen with ventral white bands .... *detracta.*
      b^3. Frons, patagia, and abdomen without white.
        a^4. Abdomen with three ventral yellow bands .... *trizonata.*
        b^4. Abdomen without ventral yellow bands.
          a^5. Fore wing with small spot below base of cell.
            a^6. Fore wing with small postmedial hyaline spot above vein 1 .... *albifrontalis.*
            b^6. Fore wing without postmedial spot above vein 1 .... *basifera.*
          b^5. Fore wing without subbasal spot ...... *albiplaga.*

b^2. Fore wing with the markings yellow hyaline.
  a^3. Fore wing with spot below cell.
    a^4. Fore wing with spot in cell; hind wing with hyaline patch .... *quadriplagiata.*
    b^4. Fore wing without spot in cell; hind wing immaculate .... *diplaga.*
  b^3. Fore wing without spot below cell .... *apicalis.*

57. Trichæta vigorsi. (Plate II. fig. 3.)

Syntomis vigorsi, Moore, Lep. E. I. C. p. 323 (1859); P. Z. S. 1859, p. 198, pl. 60. f. 4; Kirby, Cat. Het. p. 93.

Black shot with purple; antennæ white at tips. Fore wing with quadrate hyaline spot below base of cell; a wedge-shaped patch in end of cell; an oblique patch below vein 2; a spot above vein 6 and two spots between veins 2 and 5. Hind wing with hyaline patch below the cell extending between veins 2 and 5.

Hab. JAVA (*Horsfield*), 2 ♂, 1 ♀ type. *Exp.*, ♂ 32, ♀ 34 millim.

58. Trichæta detracta. (Plate II. fig. 4.)

Syntomis detracta, Wlk. Journ. Linn. Soc., Zool. vi. p. 91 (1862); Kirby, Cat. Het. p. 98.

♂. Black shot with purple; frons, tips of antennæ, and a spot on patagia white; thorax with lateral white patches; abdomen greenish, with white ventral bands. Fore wing with small quadrate hyaline spot below the cell; an oblique patch beyond the cell between veins 8 and 2 with somewhat irregular edges.

♀ with the outer edge of the hyaline patch beyond the cell of fore wing strongly indented between veins 5 and 6. Hind wing with a hyaline spot between veins 2 and 3.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂, S.E. Borneo (*Doherty*), 1 ♂ 1 ♀. *Exp.* 30 millim. Type † in Mus. Oxon.

59. Trichæta trizonata, n. sp. (Plate II. fig. 5.)

♀. Black; antennæ white at tips; abdomen shot with green and with three ventral yellow bands on medial segments. Fore wing with wedge-shaped hyaline spot below base of cell and large patch beyond the cell between veins 3 and 7. Hind wing with hyaline patch below the cell extending to vein 5.

Hab. PERAK (*Doherty*), 1 ♀ type. *Exp.* 28 millim.

60. Trichæta albifrontalis.

Syntomis albifrontalis, Pag. Jahrb. Nass. xxxviii. p. 13, pl. 1. f. 8 (1885); Kirby, Cat. Het. p. 98.

♀. Blue-black; antennæ white at tips. Fore wing with quadrate hyaline spot below base of cell; a small spot above vein 1 just beyond middle, and an oblique band of conjoined spots just beyond the cell between veins 7 and 3, expanding towards vein 3.

Hab. Nias, 1 ♀. *Exp.* 30 millim.

This may be a variety of *basifera.*

61. Trichæta basifera. (Plate II. fig. 6.)

Syntomis basifera, Wlk. Journ. Linn. Soc., Zool. vi. p. 92 (1862); Kirby, Cat. Het. p. 98.

Black shot with bright purple; antennæ white at tips; abdomen metallic green. Fore wing with small hyaline spot below base of cell; an oblique hyaline white patch beyond the cell between veins 8 and 2, with somewhat dentate edges.

Ab. 1. Hind wing with confluent hyaline spots below the cell and above vein 2.—Malacca, in Coll. Staudinger.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀. *Exp.* 30 millim. Type † in Mus. Oxon.

62. Trichæta albiplaga.

Syntomis albiplaga, Wlk. Journ. Linn. Soc., Zool. vi. p. 92 (1862); Kirby, Cat. Het. p. 97.

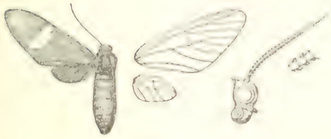

Fig. 28.—*Trichæta albiplaga*, ♂. 1/1.

Black shot with bright purple; antennæ white at tips; abdomen metallic green. Fore wing with oblique hyaline white patch beyond the cell from vein 8 to 2, its edges dentate.

Hab. Borneo, Sarawak (*Wallace*), 3 ♀. *Exp.* 26–30 millim. Type † in Mus. Oxon.

Subsp. 1. *albosignata*, Wlk. xxxi. 71 (1864); Kirby, Cat. Het. p. 98. With the white patch much broader and its edges nearly even.

Hab. Malacca, Pulo Aor, 2 ♀ types. *Exp.* 30 millim.

*63. Trichæta quadriplagiata. (Plate II. fig. 7.)

Syntomis quadriplagata, Snell. Deutsche Ent. Zeit. viii. p. 129 (1895).

♀. Black, tinged with green; frons and tips of antennæ white; abdomen with yellowish ventral bands on two medial segments. Fore wing with elongate semihyaline yellow spot below cell; a triangular spot in cell; and a large rounded postmedial patch between veins 3 and 7. Hind wing with elongate yellow patch below the cell.

Hab. E. Sumatra, Deli. *Exp.* 26 millim. Type † in Coll. Staudinger.

64. Trichæta diplaga, n. sp. (Plate II. fig. 9.)

♀. Black, slightly shot with purple; abdomen greenish. Fore wing with quadrate semihyaline yellow spot below the cell; a large rounded yellow patch beyond the cell between veins 8 and 2.

Hab. Penang (*Pinwill*), 1 ♀ type. *Exp.* 30 millim.

65. Trichæta apicalis. (Plate II. fig. 10.)

Tipulodes apicalis, Wlk. vii. 1626 (1856); Kirby, Cat. Het. p. 98.
Syntomis biplagata, Snell. Veth's Midd.-Sum., Lep. p. 33 (1880); Kirby, Cat. Het. p. 98.

Black shot with bright purple; antennæ white at tips. Abdomen greenish. Fore wing with large rounded yellow patch beyond the cell between veins 8 and 2.

Hab. Sumatra, 1 ♀ (*Raffles*) type, 4 ♀ (*Forbes*). *Exp.* 36 millim.

Subsp. 1. *flaviplaga*, Wlk. Journ. Linn. Soc., Zool. vi. p. 92 (1862); Kirby, Cat. Het. p. 93.

With the patch beyond the cell of fore wing oblique and quadrate.

Hab. Borneo, Sarawak, 2 ♀ (*Wallace*). *Exp.* 30–32 millim. Type † in Mus. Oxon.

B. Antennæ of male ciliated.
  a. Hind tibiæ with the medial spurs absent; abdomen with lateral tufts of hair.

66. Trichæta teneiformis.

Syntomis teneiformis, Wlk. vii. 1595 (1856); Kirby, Cat. Het. p. 102.

Black suffused with golden brown; vertex of head and collar orange; metathorax and paired dorso-lateral spots on each segment of abdomen orange. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell and vein 2; a postmedial yellowish hyaline spot below the costa and two spots between veins 3 and 5. Hind wing with hyaline patch below the cell and between bases of veins 2 and 5 extending just into the cell; the base of inner margin yellow.

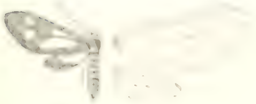

Fig. 29.
Trichæta teneiformis, ♂. ½.
(From Moths Ind. vol. i.)

Ab. 1. Fore wing with small spot in end of cell and the spot below the cell reduced; hind wing with no yellow on inner margin. —Bhutan.

Hab. Simla (*J. Harford*); Bhutan (*G. C. Dudgeon*). *Exp.* 21–22 millim.

b. Hind tibiæ with minute medial pair of spurs; abdomen smoothly scaled.
  *a*¹. Abdomen with white basal patch and band on 5th segment .... *separabilis.*
  *b*¹. Abdomen without bands .... *divisura.*

67. **Trichæta separabilis.** (Plate II. fig. 8.)

Syntomis separabilis, Wlk. Journ. Linn. Soc., Zool. vi. p. 90 (1862); Kirby, Cat. Het. p. 98.
Syntomis chloroleuca, Wlk. Journ. Linn. Soc., Zool. iii. p. 183 (1859); Kirby, Cat. Het. p. 91.

Black; frons, a ring behind the eyes, and tips of antennæ white; patagia and sides of thorax with white spots; abdomen with white patch on basal segment, narrow band on 5th, and ventral bands on the intermediate segments. Fore wing with small quadrate hyaline spots below base, in end, and below end of cell; a spot above vein 6; a spot above vein 3 conjoined to a small spot above 4. Hind wing with hyaline patch below the cell extending between veins 2 and 5.

Ab. 1. *chloroleuca*: fore wing with the two spots below the cell conjoined, the spot in end of cell reduced; a point below vein 6; and the spots between veins 3 and 5 larger.

Hab. Singapore; Borneo, Sarawak (*Wallace*), 1 ♀; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 28 millim. Types † in Mus. Oxon.

68. **Trichæta divisura.** (Plate II. fig. 11.)

Syntomis divisura, Wlk. Journ. Linn. Soc., Zool. vi. p. 90 (1862); Kirby, Cat. Het. p. 98.

Black shot with dull green and purple; frons, patagia, and lateral patches on thorax white. Fore wing with quadrate hyaline patch below the cell; a small wedge-shaped spot in the cell; a large spot above vein 6, sometimes with a small spot below it; a spot between veins 3 and 4, with small spot above its extremity above 4. Hind wing with hyaline spot below the cell confluent with a spot between veins 2 and 3.

Hab. S.E. Borneo (*Doherty*), Sarawak (*Wallace*), type † in Mus. Oxon. *Exp.*, ♂ 24, ♀ 26 millim.

Genus **SYNTOMIS.**

	Type.
Glaucopis, Hübn. Tent. i. ined. (nec Gmel. Aves, 1788)	*phegea.*
Syntomis, Ochs. Eur. Schmett. ii. p. 103 (1808)	*phegea.*
Amata, Fabr. Illig. Mag. vi. p. 289 (1808)	*passalis.*
Cœnochromia, Hübn. Verz. p. 121 (1827)	*creusa.*
Hydrusa, Wlk. i. 255 (1854)	*bicolor.*
Asinusca, Wallengr. Öfv. Vet.-Akad. Förh. xix. p. 197 (1862) ...	*atricornis.*
Asinutea, Wallengr. Wien. Ent. Mon. vii. p. 139 (1863)	*atricornis.*
Buthysia, Wallengr. Wien. Ent. Mon. vii. p. 139 (1863)	*huebneri.*

Proboscis well developed; palpi short, downcurved, and hairy; tibiæ with the spurs short. Fore wing long and rather narrow; vein 3 from well before angle of cell; 4, 5 from angle or stalked; 6 from near upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from well before angle of cell; 3 and 5 from angle or shortly stalked; 4 and 7 absent.

Sect. I. Fore wing with veins 4, 5 on a long stalk; hind wing with veins 3 and 5 stalked.

A. Abdomen with white bands .... *derivata*

B. Abdomen with orange bands.

a. Abdomen with seven orange bands; frons yellow.

*a*¹. Abdomen with the extremity yellow .... *fenestrata*.

*b*¹. Abdomen with the extremity black .... *wallacei*.

b. Abdomen with orange bands on 1st and 5th segments, and lateral spots on the intermediate segments, sometimes becoming complete bands; frons white .... *eliza*.

69. Syntomis derivata. (Plate II. fig. 12.)

Syntomis derivata, Wlk. Journ. Linn. Soc., Zool. vi. p. 89 (1862); Kirby, Cat. Het. p. 94.

♀. Black with a slight purple gloss; antennæ white at tips; tegulæ white; sides of thorax and fore coxæ with white patches; abdomen glossed with green; white bands on basal and 5th segments, and lateral spots on intermediate segments. Fore wing with large wedge-shaped hyaline patch in cell; elliptic spots below base of cell and vein 2; elongate spots between veins 3 and 5 and above 6; cilia white below apex. Hind wing with hyaline patch below the cell; a spot between veins 2 and 5.

Fore wing with veins 4, 5, hind wing with veins 3, 5 on very long stalks.

Hab. Sumatra; Borneo (*Wallace*). *Exp*. 32 millim. Type † in Mus. Oxon.

Subsp. 1. Fore wing with the spots below the cell conjoined, the spots beyond the cell more elongate; hind wing with the hyaline patches conjoined.

Hab. Perak (*Doherty*), 1 ♀.

70. Syntomis fenestrata. (Plate II. fig. 14.)

Syntomis fenestrata, Wlk. xxxi. 73 (1864).
Syntomis midas, Butl. Journ. Linn. Soc., Zool. xii. p. 344 (1876); Kirby, Cat. Het. p. 96.

♂. Black-brown; antennæ white at tips; frons, a ring round neck, tegulæ, patagia, and patches on thorax above and below orange-yellow; tarsi with the 1st joint white; abdomen with seven broad yellow bands and the anal segment yellow. Fore wing with yellow streak below costa and above inner margin; a hyaline yellow spot below base of cell; others in and below end of cell; a spot above vein 6 and one between veins 3 and 5; cilia yellow below apex. Hind wing with hyaline yellow patch below the cell and spot between veins 2 and 3, edged with golden-yellow scales.

Hab. Cambodia (*Mouhot*), 1 ♂, type *midas*. *Exp*. 30 millim. Type † in Mus. Oxon.

71. Syntomis wallacei.

Syntomis wallacei, Moore, P. Z. S. 1859, p. 198, pl. 60. f. 6; Kirby, Cat. Het. p. 94.

Black shot with purple; frons and tegulæ yellow; antennæ white at tips; thorax with lateral yellow patches, coxæ with yellow spots; tarsi with the 1st joint white; abdomen with seven orange bands. Fore wing with small round hyaline yellow spots below base and in end of cell, below vein 2, above 6, and between veins 3 and 4. Hind wing with hyaline yellow patch below the cell, becoming orange at inner margin; a spot between veins 2 and 3.

Hab. Java, 1 ♂ 1 ♀ (*Horsfield*), types. *Exp.*, ♂ 34, ♀ 40 millim.

72. Syntomis eliza.

Syntomis eliza, Butl. Journ. Linn. Soc., Zool. xii. p. 347 (1876); Kirby, Cat. Het. p. 92.

Black-brown; frons white; antennæ tipped with white; tegulæ yellow; abdomen with yellow bands on basal and 5th segments and lateral spots on the intermediate segments. Fore wing with small quadrate hyaline white spots below base of cell, in end of cell, below middle of vein 2; a postmedial spot above vein 6, sometimes with a speck below it, and a spot between veins 3 and 4, sometimes with a speck above it. Hind wing with hyaline white spot below the cell and a spot between veins 2 and 5.

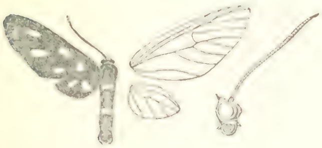

Fig. 30.—*Syntomis eliza*, ♂. $\frac{1}{1}$.

In one Pulo Laut specimen the lateral spots of abdomen are developed into complete rather narow bands; the cilia sometimes white at apex of fore wing.

Hab. Singapore (*Ridley*); Borneo, Sarawak (*Wallace*, *Lowe*), type; Pulo Laut (*Doherty*). *Exp.* 30–40 millim.

Sect. II. Fore wing with veins 4, 5 from cell or very shortly stalked.

- A. Antennæ of male bipectinate, the branches rather short and dilated distally, of female serrate.
  - *a.* Abdomen, especially in male, very slender to near extremity, where it expands.

73. Syntomis leimacis.

Syntomis leimacis, Holland, Psyche, vi. p. 375 (1893).

♂. Black; palpi, frons, tips of antennæ, and coxæ white; patagia with orange spots; femora yellow; abdomen with the slender portion orange at sides, whitish below, the anal tufts orange. Fore wing with elongate wedge-shaped hyaline patch in cell; an elongate patch below the cell, extending nearly to termen; elongate spots between veins 3 and 5 and above 6 and a small spot above 7. Hind wing hyaline, the veins and margins black, the costa and apex rather broadly so.

Fig. 31.—*Syntomis leimacis*, ♂. ½.

♀. Palpi, head, tegulæ, and patagia orange-yellow; antennæ and legs black; abdomen with the lateral and ventral surfaces of the slender portion orange and joined by a dorsal band at end of slender portion.

Hab. W. Africa, Ogové R., 1 ♂ (*Good*). *Exp.*, ♂ 24, ♀ 28 millim. Types † in Coll. Holland.

b. Abdomen normal.
  a^1. Abdomen with crimson basal band.
    a^2. Hind wing hyaline, with the veins and margins black.
      a^3. Frons white; fore wing with the patch below cell and spot above vein 2 hardly extending beyond angle of cell .... *pectoralis.*
      b^3. Frons black; fore wing with the patch below cell and spot above vein 2 extending more towards termen .... [illegible]
    b^2. Hind wing black, with two small spots between veins 2 and 5 .... *phœnicozona.*
  b^1. Abdomen with orange bands.
    a^2. Wings with the markings orange; abdomen with six bands.. .... *humeralis.*
    b^2. Wings with the markings pale yellow; abdomen with two bands and lateral spots on intermediate segments .... *ochreipuncta.*
    c^2. Wings with the markings hyaline.
      a^3. Abdomen with seven bands in male, six in female; frons black or orange.................. *actea.*
      b^3. Abdomen of male with six bands; frons with white spot .... *pratti.*
      c^3. Abdomen with orange patch at base only ... *uuka.*
  c^1. Abdomen without bands .... *goodi.*

74. Syntomis pectoralis.

Syntomis pectoralis, Wlk. i. 133 (1854); Hmpsn. Moths Ind. i. p. 224; Kirby, Cat. Het. p. 97; Butl. Ill. Het. i. pl. 6. f. 15.
Hydrusa basirufa, Swinh. Cat. Het. Mus. Oxon. p. 51 (1892).

♀. Black, shot with metallic blue-green; frons, patagia, and tips of antennæ white; thorax with crimson patches behind the mid legs; metathorax and first two segments of abdomen crimson. Fore wing with wedge-shaped milky hyaline patch in cell; an elongate patch below cell and vein 2; a spot above origin of vein 2; patches between veins 3 and 5 extending almost to margin; an elongate patch above vein 6 and spot above vein 7. Hind wing hyaline, the veins and margins narrowly black.

Ab. 1. Fore wing with no spot above vein 2.—Andamans.

Hab. Moulmein (*Clerk*), type; Tenasserim, Dawnat Hills (*De Nicéville*); Cambodia (*Mouhot*). Type † *basirufa* in Mus. Oxon. *Exp.* 26–32 millim.

75. Syntomis thoracica.

Phacusa thoracica, Moore, A. M. N. H. (4) xx. p. 343 (1877); id. Lep. Ceyl. ii. p. 38, pl. 95. f. 7; Hmpsn. Moths Ind. i. p. 224; Kirby, Cat. Het. p. 105.

Blue-black; antennæ white at tips; thorax crimson below; metathorax and first two segments of abdomen crimson. Fore wing with wedge-shaped milky hyaline patch in cell; an elongate patch below the cell and vein 2 extending nearly to tornus; a spot above vein 2; two spots in interspaces between veins 3 and 5 extending nearly to termen; a large spot above vein 6 and small spot above vein 7. Hind wing hyaline; the veins black; the margins rather broadly black, terminal band with a projection running up vein 2.

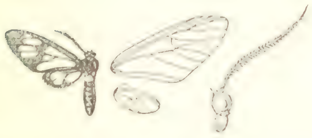

Fig. 32.—*Syntomis thoracica*, ♂. 1/1.

Hab. Ceylon, type Moore Coll. (*E. E. Green*). *Exp.*, ♂ 26, ♀ 28 millim.

76. Syntomis phœnicozona. (Plate II. fig. 13.)

Syntomis phœnicozona, Hmpsn. Journ. Bomb. Nat. Hist. Soc. xi. p. 284 (1897).

♂. Black; antennæ white at tips; thorax with crimson patches below; metathorax and 1st segment of abdomen crimson; wings with the terminal area suffused with dull blue. Fore wing with short wedge-shaped hyaline patch in end of cell and irregular quadrate patch below the end; a small postmedial spot above vein 6 and two in interspaces between veins 3 and 5. Hind wing with two small hyaline postmedial spots in interspaces between veins 2 and 5.

Hab. Andamans, type Moore Coll. *Exp.* 20 millim.

77. Syntomis humeralis. (Plate II. fig. 15.)

Hydrusa humeralis, Butl. Journ. Linn. Soc., Zool. xii. p. 352 (1876); Kirby, Cat. Het. p. 101.

♀. Black-brown; head, tegulæ, and patagia orange-yellow; antennæ and a band between their bases black; metathorax with an orange patch; abdomen with six bands and the extremity orange. Fore wing with orange spot below base of cell; an oblique wedge-shaped mark below middle of cell and vein 2; a wedge-shaped mark in end of cell; an elongate spot above vein 6 and two spots between veins 3 and 5, the lower smallest and placed towards outer margin. Hind wing with the basal half orange, conjoined to a postmedial patch between veins 2 and 5.

Hab. N. AUSTRALIA (*J. R. Elsey*), 1 ♀ type. *Exp.* 30 millim.

A development from the *annulata* group.

*78. Syntomis ochreipuncta. (Plate II. fig. 17.)

Syntomis ochreipuncta, Hmpsn. Moths Ind. i. p. 222 (1892).

♂. Black-brown; frons, vertex of head, patagia, and 1st joint of tarsi orange-yellow; abdomen with orange bands on 1st and 5th segments and lateral spots between them. Fore wing with pale yellow spot below base and in end of cell; a larger spot below origin of vein 2; small spots between veins 3 and 5 and one above vein 6. Hind wing with yellow patch between the cell and inner margin.

Hab. GANJAM, 1 ♂, Coll. Elwes, type +. *Exp.* 20 millim.

79. Syntomis actea.

Hydrusa actea, Swinh. Trans. Ent. Soc. 1891, p. 474, pl. 19. fig. 7; Kirby, Cat. Het. p. 902.

♂. Black; frons, neck, and patches on tegulæ, patagia, and thorax orange; antennæ white at tips; abdomen with seven orange bands. Fore wing with slight orange streaks below costa and above inner margin; a wedge-shaped hyaline patch in cell; an elongate patch in submedian interspace, and patches between veins 2 and 8, the one below vein 6 small. Hind wing with the costa yellowish; hyaline patches below the cell and between veins 2 and 5.

♀ with six orange bands and orange patch on terminal segment of abdomen.

Hab. ASSAM, Khási Hills. *Exp.*, ♂ 34, ♀ 46 millim. Type in Coll. Swinhoe.

Subsp. 1. ♂ frons black; thorax without orange patches; fore wing sometimes without spot above vein 7. ♀ frons orange; abdomen with the bands on 2nd, 3rd, and 4th segments somewhat interrupted dorsally.

Hab. CHINA, Chusan I. (*J. J. Walker*), 2 ♂ 1 ♀; MOUPIN, Coll. Leech.

*80. Syntomis pratti.

Syntomis pratti, Leech, Trans. Ent. Soc. 1889, p. 123, pl. 9. f. 3; Kirby, Cat. Het. p. 95.

♂. Black; frons with white spot; antennæ with the distal two-thirds of shaft white; tegulæ and pectus with orange patches; fore coxæ and legs with white patches; abdomen with six orange bands, the extremity black. Fore wing with wedge-shaped hyaline patch in end of cell; an elongate patch below middle of cell; elliptical spots above veins 3 and 4, an elongate spot above vein 6 and small spot above 7. Hind wing with hyaline patch below the cell and two spots between veins 2 and 5.

Hab. CHINA, Kiukiang. *Exp.* 50 millim. Type † in Coll. Leech.

81. Syntomis wuka. (Plate II. fig. 16.)

Syntomis wuka, Pag. Jahrb. Nass. Ver. xxxix. p. 119 (1886); Kirby, Cat. Het. p. 92.

Head, thorax, and abdomen deep metallic blue; palpi, frons, neck, and legs orange; abdomen with orange dorsal patch on 1st segment; wings purplish black. Fore wing with quadrate hyaline patch in end of cell; a small spot below base and another below middle of cell; two spots beyond the cell between veins 3 and 5, and one above 6. Hind wing with hyaline spot between veins 2 and 3, usually with a point below vein 2 and often one above 3.

Ab. 1. Fore wing with the spot below the middle of cell and those beyond it obsolescent or obsolete.

Hab. N. GUINEA, Kei Isl., 1 ♂. *Exp.*, ♂ 26, ♀ 30 millim.

Subsp. 1. *tiandæ*, Stgr., ined. Tarsi dark; abdomen without the orange dorsal patch.

Hab. N. GUINEA, Trobriand Is.

82. Syntomis goodi. (Plate II. fig. 18.)

Syntomis goodii, Holland, Psyche, vi. p. 376 (1893).
Syntomis reutlingeri, Holland, Psyche, vi. p. 376 (1893).

♂. Blue-black; antennæ with the tips white; frons with white marks; coxæ white; fore and mid femora and first joint of tarsi white in front; abdomen whitish below except towards extremity. Fore wing with small wedge-shaped hyaline spot in cell; a triangular patch below basal half of cell, and spots between veins 3 and 5 and above 6. Hind wing with hyaline patch below the cell and vein 2 confluent with a spot above vein 2 and point above 3. Underside suffused with metallic blue.

♀. Fore coxæ black; fore wing with the hyaline spots beyond cell and hind wing with the hyaline patch more extensive.

Ab. 1. *reutlingeri*. ♀. Fore wing with the lower edge of patch below cell extending more towards tornus; the spots in cell and between veins 3 and 5 and above 6 more elongate; a small spot above 7; hind wing with the hyaline area more extensive, leaving a narrow terminal band; underside blue-black.

Hab. W. AFRICA, Ogové R., type † ♂; GABOON, type † ♀ *reutlingeri* (Good) in Coll. Holland. *Exp.*, ♂ 28, ♀ 30 millim.

B (*Hydrusa*). Antennæ of male serrate, of female simple.

a. Abdomen with crimson streaks ...... *graduata.*

b. Abdomen with orange or yellow markings.

a¹. Wings with the markings hyaline.

a². Abdomen with seven orange bands in male, six in female.

a³. Fore wing with large hyaline patches in interspaces.

a⁴. Fore wing with the veins black, with orange streaks below costa and on inner margin.

a⁵. Abdomen with the anal segment black ...... *diaphana.*

b⁵. Abdomen with the anal segment orange [illegible] ...... [illegible]

b⁴. Fore wing with the veins golden yellow ...... [illegible]

c⁴. Fore wing without yellow streaks.

a⁵. Tegulæ and patagia orange.

a⁶. Frons orange.

a⁷. Hind wing with minute hyaline spots ...... [illegible]

b⁷. Hind wing with conjoined hyaline [illegible] ...... [illegible]

c⁷. Hind wing with the hyaline patches [illegible] ...... [illegible]

b⁶. Frons black; hind wing with large conjoined hyaline patches ...... [illegible]

b⁵. Tegulæ and patagia black ...... [illegible]

b³. Fore wing with small hyaline points ...... [illegible]

b². Abdomen with six orange bands; wings hyaline, with the veins and markings narrowly black ...... [illegible]

c². Abdomen with dorsal orange patch at base and [illegible] ...... [illegible]

b¹. Wings with the markings orange.

a². Abdomen with seven bands in male, six in female.

a³. Fore wing with four elongate orange spots of almost even length between veins 3 and 7.

a⁴. Wings with the markings semihyaline orange-red; fore wing with the spots below the cell conjoined ...... [illegible]

b⁴. Wings with the markings pale orange; fore wing with the spots below the cell not conjoined ...... [illegible]

b³. Fore wing with the postmedial spot between veins 4 and 5 small or wanting.

a⁴. Wings with the markings pale semihyaline orange; hind wing with the markings largely confluent ...... *aperta.*

b⁴. Wings with the markings fulvous orange; hind wing with the markings separate or slightly confluent.

a⁵. Fore wing with oblique wedge-shaped spot below base of vein 2 ...... *annulata.*

b⁵. Fore wing with small quadrate spot below end of cell ...... *insularis.*

b². Abdomen with six orange bands in male, the two terminal segments black ...... [illegible]

c². Abdomen with five orange bands, the three terminal segments black.

a³. Abdomen with ventral orange bands.

a⁴. Hind wing with the spot below cell large ...... *macroplaca.*

b⁴. Hind wing with the spot below cell absent or minute ...... *leucoma.*

b^3. Abdomen with the ventral surface black .... *cyanura.*
c^1. Wings wholly black .... *bicolor.*
c. Abdomen black; wings with hyaline spots; hind wing with orange patch below base of cell .... *atricornis.*

83. **Syntomis graduata**, n. sp. (Plate II. fig. 28.)

♂. Head, thorax, and abdomen black; tegulæ and a patch on metathorax crimson; abdomen with subdorsal and lateral crimson streaks, the subdorsal streaks conjoined by segmental lines. Fore wing with hyaline streak above vein 1 from near base to near termen, and a series of spots between veins 2 and 5 and 6 and 8, diminishing in size towards costa. Hind wing with hyaline patches below the cell and above vein 2, and spot between veins 3 and 5, which are stalked.

♀ with broad dorsal crimson fascia on abdomen.

Hab. CHINA, Kiang Nan, 1 ♂ type; ♀ in Coll. Joannis. *Exp.* 30 millim.

84. **Syntomis diaphana.**

Syntomis diaphana, Koll. Hügel's Kashmir, iv. p. 460, pl. 19. f. 7 (1844); Hmpsn. Moths Ind. i. p. 216; Kirby, Cat. Het. p. 95.
Syntomis vitreata, Herr.-Schäff. Aussereur. Schmett. f. 267 (1855); Kirby, Cat. Het. p. 95.
Syntomis œnone, Butl. Journ. Linn. Soc., Zool. xii. p. 344 (1876).

Black; antennæ white at tips; frons, tegulæ, patagia and a patch on metathorax, thorax at sides and coxæ orange-yellow; abdomen with seven yellow bands in male, six in female, the first two more or less indented and interrupted on dorsum; extremity shot with blue. Fore wing with slight yellow streaks below costa, on median nervure and vein 1; the interspaces occupied by yellowish hyaline patches, leaving a dark discocellular patch; an apical patch sending a tooth inwards above vein 5, and an expansion of the dark termen between veins 2 and 3. Hind wing hyaline yellow with the veins and margins dark, broadly so on outer half of costa, on apical part of termen, and at vein 2.

Hab. N.W. HIMALAYAS, Almorah (*Boys*), Dalhousie (*Harford*), Masuri, Kasauli; KASHMIR; ASSAM, Khásis, Sibsagar; BURMA. *Exp.* 46–52 millim.

85. **Syntomis baiæa.**

Hydrusa baiæa, Swinh. Trans. Ent. Soc. 1891, p. 473, pl. 19. f. 10; Hmpsn. Moths Ind. i. p. 222; Kirby, Cat. Het. p. 902.

Head orange; antennæ black, white at tips; thorax orange banded with black; abdomen black with seven orange bands, the anal segment blue-black, often with a yellow patch. Fore wing with large hyaline patches in the interspaces; the veins and margins black; more or less developed yellow streaks below costa and on inner area; a broad discoidal black band; the terminal band expanding and running inwards on veins 5, 3, and 2. Hind wing black, with yellow patch on base of costal area, a hyaline patch in the cell, and three large patches below the cell and vein 5; the terminal black band expanding inwards on vein 2.

Hab. Assam, Khasis, 3 ♂, type; Borneo, Kina Balu; Java, Salak, 1 ♀ (*Kirkpatrick*). *Exp.*, ♂ 34, ♀ 40 millim.

86. Syntomis era.

Hydrusa era, Swinh. Trans. Ent. Soc. 1891, p. 473, pl. 19. f. 15; Hmpsn. Moths Ind. i. p. 222.

♂. Head and thorax golden yellow; antennæ black, thorax with black stripes; abdomen black, with seven golden-yellow bands, the extremity blue-black. Fore wing golden yellow, with hyaline patches filling the interspaces; the margins black, the terminal band dentate at the veins; a black discoidal lunule; the area below vein 1 yellow. Hind wing similar, but with no discoidal patch, and with a hyaline patch below vein 1.

Hab. Assam, Khasi Hills, 1 ♂ type. *Exp.* 50 millim.

87. Syntomis metaphæa, n. sp. (Plate II. fig. 27.)

Black; antennæ white at tips; frons, back of head, tegulæ, and patches on patagia and metathorax orange; abdomen with seven orange bands in male, six in female. Fore wing with small hyaline spots below base and middle of cell; a quadrate spot in end of cell; spots between veins 3 and 5 and above 6. Hind wing with small hyaline spot below base of cell and a point above vein 2

Hab. N. Guinea, Milne Bay, 1 ♂ type; ♀ in Coll. Staudinger. *Exp.* 22 millim.

*88. Syntomis chlorometis. (Plate II. fig. 22.

Hydrusa chlorometis, Meyr. P. L. Soc. N. S. W. (2) i. p. 782 (1886); Kirby, Cat. Het. p. 101.

♂. Fuscous; head, tegulæ, and spots on patagia and metathorax yellow; antennæ and a band between their bases black; abdomen with seven pale yellow bands and a patch on terminal segment; wings with the markings hyaline, very slightly edged with yellow; a quadrate spot below base of cell; a wedge-shaped patch in end of cell; an elongate patch below end of cell and vein 8; a small mark above vein 2 and four elongate patches between veins 3 and 7, with slight streak above vein 7. Hind wing with large patch on basal half confluent with the patch between veins 2 and 5.

Hab. N. S. Wales; ♂ type + in Coll. Meyrick. *Exp.* 26 millim.

89. Syntomis huebneri.

Syntomis huebneri, Boisd. Mon. Zyg. p. 127, pl. 8. f. 4 (1829); Hmpsn Moths Ind. i. p. 219; Kirby, Cat. Het. p. 100.
Syntomis marsdeni, Moore, Lep. E. I. C. p. 323 (1859); id. P. Z. S. 1859, p. 197, pl. 60. f. 3; Kirby, Cat. Het. p. 97.
Syntomis xanthomela, Wlk. Journ. Linn. Soc., Zool. iii. p. 184 (1860); Kirby, Cat. Het. p. 97.
Naclia cingulata, Wallengr. Wien. Ent. Mon. iv. p. 39 (1860); Kirby, Cat. Het. p. 108.
Buthisia sangaris, Wallengr. Wien. Ent. Mon. vii. p. 139 (1863); Kirby, Cat. Het. p. 100.
Syntomis contermina, Wlk. xxxi. 78 (1864); Kirby, Cat. Het. p. 97.
Hydrusa pyrrhodera, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 777 (1886); Kirby, Cat. Het. p. 101.
Syntomis frustulenta, Swinh. Cat. Het. Mus. Oxon. p. 44 (1892).

Black; antennæ white at tips; frons, tegulæ, patagia, and patches on metathorax and sides of thorax orange-yellow; abdomen with orange patch on basal segment, and six bands in male, five in female. Fore wing with small orange-tinged hyaline spot below base of cell; a wedge-shaped spot in end of cell; an oblique patch below vein 2; an elongate streak above vein 6, with small spot above 7; two spots between veins 3 and 5. Hind wing with orange-tinged hyaline basal patch in and below the cell, and two spots between veins 2 and 5.

Ab. 1. *frustulenta*: with the spots smaller and the spot above vein 7 of fore wing absent.

Hab. Bombay (*Leith*); Singapore, types † *xanthomela* and *contermina* in Mus. Oxon.; Java (*Horsfield*) type *marsdeni*, (*Mathew & J. J. Walker*); Cape York (*McFarlane*); N. Australia, Roebuck Bay and Adelaide R. (*J. J. Walker*), Lizard I., type † *frustulenta* in Mus. Oxon. *Exp.* 22–24 millim.

90. Syntomis stenozona, n. sp. (Plate II. fig. 21.)

♂. Black-brown; tegulæ, patagia, and metathorax orange; abdomen with seven narrow orange bands. Fore wing with yellowish hyaline wedge-shaped patch in cell; an elongate patch below the cell; a small spot above base of vein 2; a series of four spots beyond the cell between veins 3 and 7, the spot above vein 5 rather small. Hind wing with large hyaline patch in and below the cell confluent with two spots between veins 2 and 5.

Hab. Timor, 1 ♂ type. *Exp.* 26 millim.

*91. Syntomis hyalota.

Hydrusa hyalota, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 777 (1886); Kirby, Cat. Het. p. 101.

♂. Head orange, with black spot between antennæ; antennæ and thorax black; abdomen greenish black, with orange band on each segment except the terminal; wings greenish black, with the spots hyaline. Fore wing with small round spot below base of cell; a spot in cell; a diamond-shaped spot below base of vein 2, and elongate spots between veins 3 and 5 and above 6. Hind wing with rounded spot below base of cell; a spot between veins 2 and 3 and point above 3.

Hab. QUEENSLAND, C. York. *Exp.* 32 millim.

This species is unknown to me.

92. **Syntomis phœnicia**, n. sp. (Plate II. fig. 23.)

♂. Head, thorax, and abdomen black; antennæ white at tips; vertex of head and thorax with orange patches; tarsi with the 1st joint white; abdomen with dorsal orange bands on each segment and patch on terminal segment, the band on 2nd segment obsolescent; wings brilliant blue-black. Fore wing with some orange at base of median nervure; hyaline points with orange edges in end of cell, below base of vein 2, and above vein 3. Hind wing with yellow-edged hyaline point below the cell.

Ab. 1. Wings shot with purple instead of blue; fore wing with orange suffusion on basal inner area; hind wing with orange bar below the cell.

Hab. E. AFRICA, M'Kwajuni (*Betton*), 1 ♂ type; Manda I. (*Jackson*). *Exp.* 30 millim.

*93. **Syntomis serrata.** (Plate II. fig. 24.)

Syntomis serrata, Hmpsn. Moths Ind. i. p. 221 (1892).

Head and thorax black, antennæ white towards extremity; frons, patagia, and metathorax yellow; abdomen greenish black, with yellow bands on first six segments. Wings hyaline, the veins and margins narrowly black; fore wing with a black streak between veins 5 and 6.

Hab. ASSAM, Khási Hills. *Exp.* 38 millim. Type ♀ in Coll. Elwes.

94. **Syntomis shoa**, n. sp. (Plate II. fig. 25.)

♂. Black; abdomen with small dorsal orange patch at base and lateral series of points. Fore wing with small quadrate hyaline spot in end of cell; an oblique wedge-shaped spot below base of vein 2 and small spots between veins 3 and 5 and above 6. Hind wing with hyaline patch below the cell.

Hab. ABYSSINIA, 1 ♂ type. *Exp.* 22 millim.

95. **Syntomis marella.** (Plate II. fig. 26.)

Syntomis marella, Butl. Journ. Linn. Soc., Zool. xii. p. 350 (1876); Kirby, Cat. Het. p. 96.

Hydrusa ecliptis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 776 (1886); Kirby, Cat. Het. p. 101.

Black; frons, back of head, tegulæ, and patches on metathorax and pectus orange; abdomen with seven reddish-orange bands in male, six in female; wings with the markings semihyaline reddish orange. Fore wing with elongate patch below the cell, a wedge-shaped spot in cell, and four elongate spots beyond the cell between veins 3 and 7. Hind wing with the basal patch confluent with the patch beyond the cell; the terminal area black, widening at apex and vein 2.

Hab. Australia, 1 ♂ type; Cooktown, 1 ♀. *Exp.* 34 millim.

96. Syntomis pactolina. (Plate II. fig. 19.)

Syntomis pactolina, Wlk. xxxi. 76 (1864); Kirby, Cat. Het. p. 96.

♀. Black-brown shot with metallic blue; head and tegulæ orange; antennæ and a band between their bases blackish; metathorax with an orange patch; abdomen with six orange bands and the anal tuft orange. Fore wing with wedge-shaped subbasal patch below median nervure and another in end of cell; an oblique patch below middle of cell and vein 2, and four spots of almost even length between veins 3 and 7. Hind wing with the basal and postmedial orange patches confluent, leaving a small black spot on discocellulars and a marginal blue-black band wide at costa, narrowing to vein 2, then expanding again.

Hab. N. Australia (*J. R. Elsey*), 1 ♀ type. *Exp.* 42 millim.

97. Syntomis aperta.

? *Sphinx polydamon*, Cram. Pap. Exot. iii. pl. 237. B (1780); Kirby, Cat. Het. p. 98.
Syntomis aperta, Wlk. xxxi. 72 (1864); Meyr. P. Linn. Soc. N. S. W. (2) i. p. 783 (1886); Kirby, Cat. Het. p. 101.
Hydrusa mochlotis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 782 (1886); Pagenst. Denksch. Nat. Ges. viii. pl. 13. f. 3; Kirby, Cat. Het. p. 101.
Hydrusa nesothetis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 783 (1886); Kirby, Cat. Het. p. 101.
Hydrusa recedens, Lucas, Proc. Linn. Soc. N. S. W. (2) vi. p. 281 (1891).
Eressa olinda, Swinh. Cat. Het. Mus. Oxon. p. 53 (1892).

Black-brown; head and tegulæ and more or less developed patches on the patagia orange-yellow; palpi, antennæ, and a band between their bases black; metathorax with an orange patch; abdomen with seven orange bands and the extremity orange; wings with the blue shot slight or absent, the markings pale semihyaline yellow. Fore wing with large subquadrate or small rounded spot below base of cell; a wedge-shaped patch below vein 2, extending more or less towards termen and sometimes connected with the subbasal spot, and with a more or less developed spot above base of vein 2; a wedge-shaped spot in end of cell; an elongate spot above vein 6, usually with a shorter streak above vein 7, and sometimes with a spot below end of vein 6; two spots between veins 3 and 5. Hind wing with fascia in cell joined to a large patch between median nervure and inner margin; two large spots between veins 2 and 5 usually conjoined to the basal patch.

Typical *aperta=mochlotis* has a spot on fore wing between veins 4 and 5; abdomen with the bands on two terminal segments obsolescent below.

Ab. 1. *nesothetis*: abdomen with the terminal bands not obsolescent.

Ab. 2. *olinda*: fore wing with no spot between veins 4 and 5.

Ab. 3. *recedens*: a small form 15–24 millim., the markings pale orange-yellow.

Hab. N. GUINEA; N. AUSTRALIA, Bathurst and Queen's Islands; Queensland (*J. J. Walker*); VICTORIA, Melbourne (*J. P. Lucas*); S. AUSTRALIA (*Bakewell*), type. *Exp.* 34–44 millim. Types + *olinda* in Mus. Oxon, *nesothetis* in Coll. Meyrick.

Polydamon is said to have come from Cape Colony, but nothing like it is known from S. Africa; Cramer's figure differs in some respects from the Australian species.

98. Syntomis annulata.

Zygæna annulata, Fabr. Syst. Ent. p. 551 (1775); Boisd. Mon. Zyg. p. 122, pl. 7. f. 8 & pl. 8. f. 2; Meyr. P. Linn. Soc. N. S. W. (2) i. p. 783; Kirby, Cat. Het. p. 101.

Hydrusa completa, Butl. Journ. Linn. Soc., Zool. xii. p. 352 (1876); Kirby, Cat. Het. p. 101.

Hydrusa nigriceps, Butl. Journ. Linn. Soc., Zool. xii. p. 352 (1876); Kirby, Cat. Het. p. 101.

Hydrusa intensa, Butl. Journ. Linn. Soc., Zool. xii. p. 353 (1876); Kirby, Cat. Het. p. 101.

Hydrusa anepsia, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 779 (1886); Kirby, Cat. Het. p. 101.

Hydrusa pyrosticta, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 780 (1886); Kirby, Cat. Het. p. 101.

Hydrusa synedra, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 780 (1886); Kirby, Cat. Het. p. 101.

Hydrusa hesperitis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 781 (1886); Kirby, Cat. Het. p. 101.

Hydrusa phepsalotis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 784 (1886); Kirby, Cat. Het. p. 101.

Hydrusa chroma, Swinh. Cat. Het. Mus. Oxon. p. 50 (1892).

Head and tegulæ fulvous orange; palpi, antennæ, and a band between their bases black; thorax and abdomen black; metathorax and base of abdomen with orange patches, the latter with six orange bands and the extremity orange; wings black shot with metallic blue. Fore wing with rounded orange spots below base and in end of cell; an oblique wedge-shaped spot below base of vein 2; an elongate streak above vein 6, often with a short streak above vein 7 and speck below vein 6; two spots between veins 3 and 5. Hind wing with an orange streak in cell

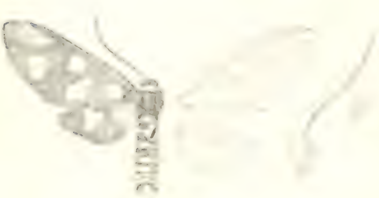

Fig. 33.—*Syntomis annulata*, ♂. ½.

and large patch between median nervure and inner margin; two spots between veins 2 and 5, sometimes connected with the basal patch and sometimes with the upper spot reduced or absent.

Typical *annulata* is a large form, the antennæ white at tips, the vertex of head orange, and the spots of hind wing well separated.

Ab. 1. A small form with the spots of hind wing small and separate, the spot above vein 3 minute or absent. (*a*) *intensa*, Meyr. (*nec* Butl.), hind wing with small spot in base of cell; (*b*) *phepsalotis*, hind wing without spot in cell.

Antennæ with the tips black.

Ab. 2. With a small spot on fore wing between veins 5 and 6. (*a*) *cingulata*=*synedra*, abdomen with anal segment orange except at base; (*b*) *pyrocoma*, abdomen with small orange spot on anal segment.

Ab. 3. *intensa*=*hesperitis*: without the spot between veins 5 and 6.

Ab. 4. *nigriceps*: with the vertex of head black.

Ab. 5. Hind wing with the spots conjoined, the vertex of head orange.

Ab. 6. *chroma*: a small form with the spots of hind wing conjoined.

Ab. 7. *anepsia*: abdomen with the terminal segment wholly black.

Hab. Philippines, Samboangan (*J. J. Walker*); N. Guinea (*W. V. Turner*); Queensland, N. S. Wales: types *cingulata* (Gibbons), *intensa* and *nigriceps* (Macgillivray), (*Sinclair*, *Waller*, *Higlett*, *G. F. Mathew*). *Exp.* 24–48 millim.

99. **Syntomis insularis.** (Plate II. fig. 20.)

Hydrusa insularis, Butl. Journ. Linn. Soc., Zool. xii. p. 353 (1876); Kirby, Cat. Het. p. 101.

Hydrusa stelotis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 776 (1886); Kirby, Cat. Het. p. 101.

Black-brown; head and tegulæ dark orange; antennæ and a band between their bases black; abdomen with seven dark orange bands, the anal segment black. Fore wing with small quadrate orange spot below base of cell; an oblique quadrate spot below middle of cell; a somewhat elongate spot in end of cell; a postmedial series of four spots between veins 3 and 7, the spot above vein 5 often minute. Hind wing with basal orange patch below the cell; a spot between veins 2 and 3, often conjoined to the basal patch.

Antennæ very minutely serrate.

Hab. N. Australia, Barnard I. (*Macgillivray*), type ♂; Queensland (*G. F. Mathew*), 1 ♂ 1 ♀. *Exp.* 28–34 millim.

*100. Syntomis antitheta.

Hydrusa antitheta, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 779 (1886); Kirby, Cat. Het. p. 101.
Hydrusa paraula, Meyr. P. Linn. Soc. N. S. (2) i. p. 779 (1886); Kirby, Cat. Het. p. 101.

♂. Head orange, with black spot between antennæ; antennæ and thorax blackish; abdomen blue-black, with six orange bands, the two terminal segments black. Fore wing purplish black, with whitish ochreous semihyaline spots tinged with orange; subquadrate spots below base and in end of cell; a wedge-shaped spot below base of vein 2, sometimes with a point above 2; elongate spots between veins 3 and 5, and a very elongate spot above 6 and point above 7. Hind wing blackish, with the spots pale dull orange; an irregular patch in and below base of cell and a rounded spot between veins 2 and 3.

♀. Metathorax with orange spot; fore wing with the spots pale dull orange, the spots below and in end of cell wedge-shaped; hind wing with the patches slightly confluent.

Hab. QUEENSLAND, Gayndah, Cooktown. *Exp.*, ♂ 30-35, ♀ 28 millim.

This species is unknown to me.

*101. Syntomis macroplaca. (Plate III. fig. 1.)

Hydrusa macroplaca, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 781 (1886); Kirby, Cat. Het. p. 101.

♀. Black shot with green; frons, vertex of head, and tegulæ and patches on pectus and metathorax orange; abdomen with orange bands on first five segments, the anal tuft greyish. Fore wing with pale orange quadrate spots below base and in end of cell; an elongate curved spot below vein 2, a small spot above base of vein 2, spots between veins 4 and 5, a streak above vein 6 with small spot below its extremity, and short streak above vein 7. Hind wing with diffused pale orange patch at base, a spot between veins 2 and 3, and traces of a spot above vein 3.

Hab. N. S. WALES, 1 ♀ type † in Coll. Meyrick. *Exp.* 38 millim.

*102. Syntomis leucacma.

Hydrusa leucacma, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 778 (1886); Kirby Cat. Het. p. 101.

Head orange; a fuscous line between bases of antennæ, which are black with the tips white; thorax blue-black, metathorax with orange spot; abdomen blue-black, with iridescent orange bands on first five segments, the terminal three segments blue-black; wings black, the spots pale semihyaline orange. Fore wing with subquadrate spot below base of cell; an irregular spot in cell; an oblique wedge-shaped spot below base of vein 2; elongate spots between veins 3 and 5, and a very elongate spot above 6, sometimes with point above 7.

Hab. Queensland, Cairns. *Exp.* 32–42 millim.

This species is unknown to me.

*103. Syntomis cyanura.

Hydrusa cyanura, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 778 (1886); Kirby, Cat. Het. p. 101.

♂. Head orange, with a few blackish scales between antennæ, which are black; thorax black; metathorax with a few orange scales; abdomen black, with five dorsal orange bands, the terminal three segments and ventral surface black; wings black, with pale semihyaline orange spots. Fore wing with subquadrate spot below base of cell; a wedge-shaped spot in cell; a diamond-shaped spot below base of vein 2; elongate spots between veins 3 and 5 and a very elongate spot above 6. Hind wing with patch below base of cell, deeper orange towards inner margin; a spot between veins 2 and 3 and smaller spots above 3.

Hab. Torres Straits, Thursday I. *Exp.* 30 millim.

This species is unknown to me.

104. Syntomis bicolor.

Euchromia bicolor, Wlk. i. 255 (1854); Butl. Ill. Het. i. p. 19, pl. 9. f. 1; Meyr. P. Linn. Soc. N. S. W. (2) i. p. 785; Kirby, Cat. Het. p. 101.
Hydrusa eschatias, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 785; Kirby, Cat. Het. p. 101

Black-brown; head and tegulæ dark orange; antennæ black; abdomen with a basal orange patch and six bands, the anal segment black; wings without markings.

Ab. 1. *eschatias*: abdomen with the anal segment orange except at base; hind wing with traces of subbasal orange spot.

Hab. Queensland (*Macgillivray*), 4 ♂ ♀, type. *Exp.* 29–32 millim.

105. Syntomis atricornis. (Plate III. fig. 2.)

Asinusca atricornis, Wallengr. Wien. Ent. Mon. vii. p. 139 (1863); Kirby, Cat. Het. p. 106.
Syntomis sirius, Dist. A. M. N. H. (6) xx. p. 15 (1897).

♂. Black with a greenish tinge. Fore wing with small quadrate hyaline spot in end of cell and oblique spot below the cell; two spots between veins 3 and 5 and one above vein 6. Hind wing with orange patch below base of cell and hyaline spot between veins 2 and 3; veins 3 and 5 stalked.

Hab. Mashonaland, 1 ♂ (*Marshall*); Transvaal, type † *sirius* in Coll. Distant; Cape Colony, type in Mus. Stockholm. *Exp.* 22 millim.

C. (*Syntomis*). Antennæ simple in both sexes.
  a. Hind tibiæ and tarsi of male thickly fringed with rough scales, the apex of hind wing produced.

106. Syntomis teinopera, n. sp.

Fig. 34.—*Syntomis teinopera*, ♂. $\frac{1}{1}$.

Black-brown; abdomen with orange bands on first four segments. Fore wing with elliptical pale orange spot below base of cell; a narrow wedge-shaped spot below base of vein 2; a small subquadrate spot in end of cell, and small spots above veins 3, 4, and 6. Hind wing with an orange patch below base of cell, almost confluent with a small spot between veins 2 and 3.

Hab. Borneo, Kina Balu, 1 ♂ type; ♀ in Coll. Staudinger. *Exp.* 40 millim.

  b. Hind tibiæ and tarsi of male normal
    *a*¹. Fore wing of male with two-thirds of inner area and the terminal area, hind wing with the outer two-thirds clothed with rough scales on underside.

*107. Syntomis cymatilis.

Syntomis cymatilis, Swinh. Cat. Het. Mus. Oxon. p. 40 (1892).
Syntomis laomedia, Druce, A. M. N. H. (6) xv. p. 43 (1895).

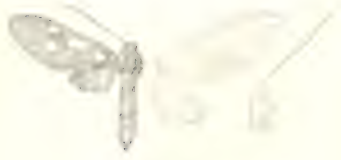

Fig. 35.
Syntomis cymatilis, ♂. $\frac{1}{1}$.

♂. Blue-black; abdomen with slight orange band on basal segment above and band on 5th segment at sides and below. Fore wing with small rounded hyaline spot below base of cell; a quadrate spot in end of cell; a small spot above vein 6 and two spots between veins 3 and 5. Hind wing with small hyaline spot below base of cell. Underside with the areas covered by the rough scales brown.

Ab. 1. Fore wing with small hyaline spot above vein 2 beyond middle, the postmedial spots larger.

♀. Abdomen with the orange band complete; fore wing with the spot above vein 6 larger; a small subterminal spot below vein 2; hind wing without the spot below the cell.

Hab. Philippines, 1 ♂ 1 ♀, types † in Mus. Oxon. Type † *laomedia* in Coll. Druce. *Exp.* 34 millim.

b^1. Male with the underside of wings normal.
a^2. Abdomen orange, with segmental black lines, the terminal segments crimson.............................. *leucerythra.*
b^2. Abdomen black, with the markings red.
a^3. Abdomen with basal red patch only.
a^4. Tegulæ dark red .... *trifenestrata.*
b^4. Tegulæ black .... *ceres.*
b^3. Abdomen with basal scarlet patch and lateral series of three spots .... *kuhlweini.*
c^3. Abdomen with basal patch, conjoined bands on 4th and 5th segments, and lateral spots on 2nd and 3rd .... *dilateralis.*
d^3. Abdomen with basal patch and bands on 3rd, 4th, and 5th segments.
a^4. Wings with hyaline spots.
a^5. Thorax with scarlet patches on pectus.
a^6. Tarsi with the 1st joint white .... *cerbera.*
b^6. Tarsi with the 1st joint dark .... *alicia.*
b^5. Thorax without scarlet patches on pectus......... *tomasina.*
b^4. Wings with orange spots .... *rufina.*
c^4. Wings without hyaline spots .... *velatipennis.*
e^3. Abdomen with seven bands in ♂, six in ♀*.
a^4. Fore wings with crimson markings.................. *divalis.*
b^4. Fore wing without crimson markings.
a^5. Abdomen with the bands crimson.
a^6. Fore wing with complete series of spots between veins 7 and 8 .... *rubrozonata* †.
b^6. Fore wing with three spots beyond the cell only.. *celebesa.*
b^5. Abdomen with the bands cupreous red.
a^6. Frons, back of head, and tegulæ cupreous red. *aurofasciata.*
b^6. Frons, back of head, and tegulæ black .... *passalis.*
c^2. Abdomen with the markings orange.
a^3. Wings with the markings orange, not hyaline.
a^4. Hind wing of ♂ with the tornus expanded into a large lobe...................................... *egenaria.*
b^4. Hind wing of male with the tornus very ample but not lobed.
a^5. Abdomen with orange bands on each segment.
a^6. Abdomen orange at extremity; fore wing with the streaks beyond the cell long .... *euryptera.*
b^6. Abdomen black at extremity; fore wing with the streaks beyond the cell short............... *dilatata.*
b^5. Abdomen with four orange bands only .... *kinensis.*
c^4. Hind wing of male with the tornus normal.
a^5. Abdomen with complete orange bands on each segment.
a^6. Wings orange with black margins .... *geon.*
b^6. Wings black with orange spots.
a^7. Hind wing with the spot below the cell confluent with the spot above vein 2.
a^8. Fore wing with the spot below base of cell large and quadrate; the other markings elongate .... *pfeifferæ.*
b^8. Fore wing with the spot below base of cell small and rounded, the other markings rounded or quadrate .... *wimberleyi.*

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* In *celebesa* often more or less completely reduced to lateral spots.
† An aberration has the bands of abdomen orange.

b^7. Hind wing with the spot below the cell separate from the spot above vein 2 ... . *tenuis.*

b^5. Abdomen with four complete orange bands.

a^6. Wings with the markings opaque orange ...... *tetragonaria.*

b^6. Wings with the markings semihyaline reddish . *chrysozona.*

b^3. Wings with the markings orange; fore wing with three hyaline spots.. .... *bathyras.*

c^3. Wings with the markings mostly hyaline.

a^4. Abdomen with an orange band on each segment.

a^5. Abdomen with the extremity orange.

a^6. Frons white .... *vitrea.*

b^6. Frons yellow.

a^7. Wings with yellow patches in interspaces of terminal area .... *submarginalis.*

b^7. Wings without yellow patches on terminal area.

a^8. Wings yellowish hyaline.

a^9. Fore wing with the veins and margins narrowly black, the patch in submedian interspace entire . . .. *sladeni.*

b^9. Fore wing black with hyaline yellow spots, the submedian patch divided or entire . *acrospila.*

b^8. Wings hyaline; fore wing usually with band across submedian interspace.

a^9. Fore wing with orange streaks below costa and above inner margin.

a^{10}. Fore wing with the hyaline markings extensive, a spot above vein 2 . ... *crocea.*

b^{10}. Fore wing with the hyaline markings reduced to spots, no spot above vein 2 *polymita.*

b^9. Fore wing without orange streaks below costa and above inner margin .... *germana.*

c^6. Frons black; antennæ yellow .... *chlorocera.*

b^5. Abdomen with the extremity black.

a^6. Wings yellow hyaline.

a^7. Wings with narrow black margins.

a^8. Fore wing with the terminal black band dentate above vein 5; hind wing with it not dentate at vein 2.. .... *fervida.*

b^8. Fore wing with the terminal black band not dentate at vein 5; hind wing with it dentate at vein 2 .... *rouaca.*

b^7. Wings with broad black margins .... *euryzona.*

b^6. Wings fuscous, with orange hyaline spots.

a^7. Frons yellow; tegulæ black.

a^8. Shoulders with yellow spots .... *xanthoma.*

b^8. Shoulders without yellow spots .... *fusca.*

b^7. Frons black; tegulæ yellow .... *torquata.*

c^6. Wings hyaline white.

a^7. Fore wing without black bar across submedian interspace.

a^8. Fore wing with orange fasciæ below costa and on inner area, the hyaline patches more or less outlined with yellow .... *muirheadi.*

b^8. Fore wing with slight yellow streaks on inner area only.

a^9. Frons white; hind wing with the basal area mostly hyaline.

a^{10}. Abdomen greenish black; fore wing without hyaline streak between veins 4, 5 .... *masoni.*

b^{10}. Abdomen purplish black; fore wing with hyaline streak between veins 4, 5 ...... *melana.*

b^9. Frons orange; hind wing with the basal area orange .... *basigera.*

c^8. Fore wing without yellow streak; the frons grey .... *consequa.*

b^7. Fore wing with black bar across submedian interspace.

a^8. Fore wing with orange streak below costa and above inner margin, the hyaline patches large .... *perixanthia.*

b^8. Fore wing without orange streaks.

a^9. Frons orange.

a^{10}. The hyaline patches occupying most of wings; fore wing with elongate patches between veins 2 and 5.

a^{11}. Fore wing with hyaline patch between veins 2, 3; hind wing with the hyaline patches confluent .... *signata.*

b^{11}. Fore wing with the interspace between veins 2 and 3 black; hind wing with the basal and postmedial hyaline patches separate.......................... *luteifascia.*

b^{10}. The hyaline patches reduced to spots; fore wing without spots between veins 2 and 3 .... *berinda.*

b^9. Frons black .... *formosæ.*

b^4. Abdomen with five orange bands.

a^5. Frons white; wings mostly hyaline .... *divisa.*

b^5. Frons orange.

a^6. Wings hyaline, with the veins and margins black .... *compta.*

b^6. Wings black, with hyaline patches............... *pentazonata.*

c^4. Abdomen with four orange bands.

a^5. Frons, tegulæ, patagia, and patches on thorax white.. *albifrons.*

b^5. Frons white, tegulæ and patagia black.

a^6. Fore wing with no spots above veins 2 and 7... *quadrifascia.*

b^6. Fore wing with hyaline spots above veins 2 and 7 .... *dichotoma.*

c^5. Frons and patches on tegulæ and patagia orange; hind wing with two hyaline spots .... *flavifrons.*

d^5. Tegulæ orange; frons, patagia, and thorax black. *tetrazonata.*

e^5. Tegulæ, frons, and patagia black.

a^6. Pectus with orange patches; abdomen with dorsal bands on 1st four segments .... *creobota.*

b^6. Pectus without orange patches; abdomen with dorsal bands on 1st, 3rd, and 4th, and complete band on 5th segment .... *persica.*

d^4. Abdomen with three orange bands.

a^5. Abdomen with lateral orange spots on 4th and 5th segments; hind wing without hyaline patches. *ribbei*

b^5. Abdomen without lateral orange spots; hind wing with hyaline patches .... *johanna.*

e^4. Abdomen with orange bands on 1st and 5th segments.

a^5 Abdomen with lateral orange spots between the bands.

a^6. Fore wing hyaline, the basal area black with an orange spot .... *pryeri.*

b^6. Fore wing black or brown, with hyaline markings.

a^7. Fore wing with yellowish hyaline markings occupying the greater part of wing, the patch in submedian interspace entire ..... *gelatina.*

b^7. Fore wing with the hyaline markings not yellowish.
  a^8. Fore wing brown, with an oblique series of hyaline patches between bases of inner margin and costa beyond middle .... *extensa.*
  b^8. Fore wing black, with hyaline spots between veins 3 and 5.
    a^9. Frons yellow.
      a^{10}. Tegulæ and patagia yellow .... *khasiana.*
      b^{10}. Tegulæ and patagia black .... *lucina.*
    b^9. Frons black.
      a^{10}. Tegulæ orange .... *edwardsi.*
      [illegible]

b^5. Abdomen without lateral orange spots.
  a^6. Neck with an orange ring.
    a^7. Fore wing with hyaline spot above vein 6, the spots large ... . *cyssea.*
    b^7. Fore wing without spot above vein 6, all the spots much reduced.
      a^8. Hind wing without spot above vein 2, the spot below the cell moderate and rounded . *[illegible]*
      b^8. Hind wing with speck above vein 2, the spot below the cell narrow and bar shaped ...... *albapex.*
  b^6. Neck without an orange ring.
    a^7. Frons yellow or whitish.
      a^8. Metathorax with orange patch.
        a^9. Hind wing with the hyaline patch becoming bright orange on inner margin .... *sperbius.*
        b^9. Hind wing without orange on inner [illegible]
      b^8. Metathorax without orange patch.
        a^9. Frons yellow.
          a^{10}. Wings with the spots large; size large... *bicincta.*
          b^{10}. Wings with the spots minute; size small. *minor.*
        b^9. Frons white .... *[illegible]*
    b^7. Frons black.
      a^8. Wings not shot with bright metallic blue or green.
        a^9. Wings with the spots hyaline, unscaled ... *cingulata.*
        b^9. Wings with the spots clothed with yellowish-white scales .... [illegible]
      b^8. Wings shot with bright metallic blue or green.
        a^9. Hind wing without spot above vein 2, the spot below cell round.
          a^{10}. Wings with the spots well developed; abdomen with the bands broad.
            a^{11}. Wings shot with green; fore wing with the oblique spot below vein 2 elongate. *caspia.*
            b^{11}. Wings shot with purple-blue; fore wing with the spot below vein 2 quadrate . *maracandina.*
          b^{10}. Wings with the spots minute; abdomen with the bands narrow .... *bifasciata.*
        b^9. Hind wing with spot above vein 2 confluent with the patch below cell.
          a^{10}. Hind wing with the outer edge of patch below the cell not indented............... *bactriana.*
          b^{10}. Hind wing with the outer edge of patch below the cell indented.
            a^{11}. Wings with the spots small; size moderate ... [illegible]
            b^{11}. Wings with the spots large; size large . *mestrali.*

c^9. Hind wing with spot above vein 2 separate from the patch below cell ………… *phegea.*
f^4. Abdomen with one orange band ………… *ganssuensis.*
g^4. Abdomen without dorsal bands.
  a^5. Abdomen with six paired lateral bands widely separated on dorsum ………… *lateralis.*
  b^5. Abdomen with paired lateral series of orange spots.
    a^6. Wings with large hyaline patches ………… *adjuncta.*
    b^6. Wings with small hyaline specks………… *simplex.*
  c^5. Abdomen with ventral yellow band on 5th segment ………… *unifascia.*
h^4. Abdomen orange with the terminal segments black ………… *discata.*
d^2. Abdomen with the markings white.
  a^3. Abdomen with white bands on 1st and 5th segments and lateral spots or ventral bands on intermediate segments.
    a^1. Frons white. ………… *stellaris.*
    b^4. Frons black ………… *rendalli.*
  b^3. Abdomen with dorsal white patch on 1st segment, and ventral bands except on terminal segments. *longipennis.*
  c^3. Abdomen with dorsal white patch on 1st segment and lateral points on next four segments………… *cærulescens.*
e^2. Abdomen without markings.
  a^4. Fore wing hyaline with black borders………… *veronica.*
  b^4. Fore wing with hyaline patch occupying nearly the whole terminal half of wing; hind wing with small spot above vein 2………… *cantori.*
  c^4. Fore wing with hyaline spots.
    a^5. Fore wing with obsolescent patches of red between the hyaline spots ………… *interniplaga.*
    b^5. Fore wing without obsolescent red patches …… *marina.*

108. Syntomis leucerythra.

Syntomis leucerythra, Holland, Psyche, vi. p. 376 (1893).
Syntomis rubicunda, Mab. & Vuillot, Nov. Lep. p. 153, pl. xxi. f. 8 (1895).

♀. Head, thorax, and abdomen orange-yellow; antennæ black with the tips white; mesothorax black in front; abdomen with slight segmental black lines, the terminal segments suffused with crimson; wings crimson, becoming yellow at base. Fore wing with the margins and veins except at base black; a medial series of hyaline spots edged with black above veins 1 and 2 and in cell, and a postmedial oblique series between veins 3 and 7, the spot above 5 small, often minute. Hind wing with the cilia and the costa towards apex black.

Hab. Cameroons, Ogové R. *Exp.* 42 millim. Type † in Coll. Holland; type † *rubicunda* in Coll. Staudinger.

*109. Syntomis trifenestrata.

Syntomis trifenestrata, Röber, Tijd. v. Ent. xxxiv. p. 324 (1891), and xxxv. pl. 6. f. 2.

Blue-black; tegulæ and 1st segment of abdomen dark red. Fore wing with small triangular hyaline spot in end of cell and two spots between veins 3 and 5. Hind wing with hyaline spot between veins 2 and 3.

Hab. Leiti, near Timor. *Exp.* 20 millim. This species is unknown to me.

110. Syntomis ceres.

Syntomis ceres, Oberth. Ét. Ent. iii. p. 33, pl. 3. f. 5 (1878); Kirby, Cat. Het. p. 94.

Metallic green; antennæ white at tip; thorax with lateral scarlet spots; abdomen with scarlet patch on basal segment. Fore wing with quadrate hyaline patch below base of cell; a wedge-shaped patch in end of cell; an oblique patch below vein 2 extending nearly to termen; an elongate postmedial spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline patch below the cell and large spot between veins 2 and 3.

Hab. Zanzibar; Br. Centr. Africa, Zomba (*H. Johnston*). *Exp.* 36 millim.

111. Syntomis kuhlweini.

Syntomis kuhlweinii, Lefb. Mag. Zool., Ins. pl. 23 (1831). Butl. Ill. Het. i. p. 16, pl. 6. f. 17; Kirby, Cat. Het. p. 94.

Syntomis natalii, Boisd. Delegorgue Voy. Afr. Austr. ii. p. 596 (1847); Kirby, Cat. Het. p. 92.

Metallic blue; frons and tips of antennæ white; thorax with lateral scarlet patches; tarsi with the 1st joint white; abdomen with scarlet patch on basal segment and lateral series of three spots. Fore wing with rounded hyaline spot below base of cell; a quadrate spot in end of cell; an oblique narrow wedge-shaped spot below vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5; cilia white below apex. Hind wing with large hyaline white patch below the cell and spot between veins 2 and 3.

Hab. Natal (*R. Trimen*, *Gueinzius*); Cape Colony. *Exp.* 30–38 millim.

112. Syntomis dilateralis, n. sp. (Plate III. fig. 3.)

♂. Metallic blue-green; antennæ white at tips; thorax with a pair of lateral orange spots; abdomen with basal cupreous crimson patch, conjoined bands on 4th and 5th segments and conjoined lateral spots on 2nd and 3rd segments. Fore wing with rounded hyaline patch below base of cell and quadrate patch in end of it; a subquadrate patch below end of cell and vein 2; a spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline patch in and below cell, becoming orange at vein 1; a large round spot between veins 2 and 5; underside with a golden-yellow streak below base of costa.

Hab. E. Africa, Kiliman'jaro, between 3000 and 8000 ft. (*Hannington*), 1 ♂ type. *Exp.* 24 millim.

113. Syntomis cerbera.

Sphinx cerbera, Linn. Mus. Ulr. p. 363 (1764); Drury, Ill. Ex. Ent. i. pl. 26. f. 2; Cram. Pap. Exot. i. pl. 83. F; Kirby, Cat. Het. p. 93.
Syntomis fantasia, Butl. Journ. Linn. Soc., Zool. xii. p. 349; Kirby, Cat. Het. p. 93.

Head, thorax, and abdomen metallic blue-green; antennæ white at tips; thorax with lateral scarlet patches; tarsi with the 1st joint white; abdomen with more or less developed scarlet patch on basal segment and bands on 3rd, 4th, and 5th segments; wings metallic blue-green. Fore wing with hyaline quadrate spot below base of cell; an oblong spot in end of cell; a large oblique patch below vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5; cilia sometimes white near apex. Hind wing with hyaline patch below the cell and rounded spot between veins 2 and 3.

Ab. 1. The hyaline spots very much reduced; hind wing with small spot at base only.

Ab. 2. *fantasia*. Fore wing with an extra spot between veins 5 and 6.

Ab. 3. Frons white.—Lake Nyasa, Hills of Terta; Natal, Estcourt.

Hab. NATAL (*J. Hutchinson*); ZULULAND; CAPE COLONY, type *fantasia*. *Exp.*, ♂ 32, ♀ 38 millim.

Subsp. 1. Fore wing with the spot in end of cell large and wedge-shaped.—KILIMAN'JARO (*Hannington*); NYASALAND (*Crawshay*).

Subsp. 2. *francisca*, Butl. Journ. Linn. Soc., Zool. xii. p. 349; Kirby, Cat. Het. p. 93.
Syntomis curtiplaga, Mab. Ann. Soc. Ent. Fr. (6) x. p. 35 (1890); Kirby, Cat. Het. pp. 93, 901.

Fore wing with the spot in end of cell small and rounded.—SIERRA LEONE (*Foxcroft*), type; CONGO, type † *curtiplaga* in Coll. Mabille; DELAGOA BAY (*Mrs. Monteiro*).

114. Syntomis alicia. (Plate III. fig. 4.)

Zygæna alicia, Butl. Journ. Linn. Soc., Zool. xii. p. 348 (1876); Kirby, Cat. Het. p. 93.

♀. Metallic green; thorax with lateral scarlet patches; abdomen with scarlet patch on basal segment and bands on 3rd, 4th, and 5th segments; wings shot with purple. Fore wing with rounded spot below base of cell; a truncate wedge-shaped patch in end of cell; an oblique patch below vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline patch below the cell yellowish towards inner margin; a round spot between veins 2 and 3, sometimes with a speck above vein 4.

Hab. ABYSSINIA (*W. C. Harris*), 2 ♀ type. *Exp.* 40 millim.

115. Syntomis tomasina. (Plate III. fig. 5.)

Syntomis tomasina, Butl. Journ. Linn. Soc., Zool. xii. p. 348 (1876); Kirby, Cat. Het. p. 93.

Metallic blue-green; antennæ white at tips; tarsi with the 1st joint white; abdomen with scarlet patch on basal segment and bands on 3rd, 4th, and 5th segments. Fore wing with minute round hyaline spot below base of cell; a quadrate spot in end of cell; an oblique spot below vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5; cilia white towards apex. Hind wing with hyaline patch below the cell and small round spot between veins 2 and 3.

Ab. 1. Fore wing with the two spots below the cell completely confluent on left-hand side, partially on right.

Hab. Sierra Leone (*J. Foxcroft*, *C. B. Mitford*); E. Africa, between Salt Lake and Wawamba Co. (*Scott Elliot*). *Exp.* 30 millim.

*116. Syntomis rufina.

Syntomis rufina, Oberth. Ét. Ent. iii. p. 32, pl. 3. f. 4 (1878); Kirby, Cat. Het. p. 97.

Head, thorax, and abdomen black shot with blue; antennæ with the extremities white; tarsi white at base; abdomen with crimson dorsal spot on 1st segment and dorsal bands on 3rd, 4th, and 5th segments; wings black shot with brilliant blue, the spots orange. Fore wing with oblong spot below base of cell; a quadrate spot in end of cell; an irregular spot below base of vein 2; small spots between veins 3 and 5 and above 6. Hind wing with double spot below base of cell and small spot between veins 2 and 3.

Hab. Abyssinia. *Exp.* 36 millim. This species is unknown to me.

117. Syntomis velatipennis. (Plate III. fig. 6.)

Syntomis velatipennis, Wlk. xxxi. 67 (1864); Kirby, Cat. Het. p. 93.

♀. Black-brown; thorax with a pair of fiery-red lateral spots; abdomen with fiery-red basal patch, and rather narrow bands on 3rd, 4th, and 5th segments. Wings shot with dull metallic green and without markings.

Hab. Abyssinia (*W. C. Harris*), 1 ♀ type. *Exp.* 36 millim.

*118. Syntomis divalis.

Syntomis divalis, Schaus & Clem. Lep. Sierra Leone, p. 21, pl. i. f. 2 (1893).

♂. Black-brown; antennæ white at tips; frons and tegulæ with orange patches; patagia, meso- and metathorax with orange-red patches; legs orange and black; abdomen with crimson bands above on first six segments, the ventral surface orange. Fore wing with crimson basal patch; postmedial spots in end of cell and above veins 2 and 1, and a subterminal band from below costa to vein 4; an elongate hyaline spot in cell and spots above veins 2 and 1 below the cell; subterminal spots above veins 3, 4, and 6. Hind wing with orange fascia on costa. Underside with patches of orange at base of wings.

Hab. Sierra Leone, 1 ♂, type† Coll. Schaus. *Exp.* 40 millim.

The male seems to have the frenulum aborted and represented by short hairs, the retinaculum absent.

*119. **Syntomis rubrozonata.** (Plate III. fig. 7.)

Syntomis rubrozonata, Pouj. Bull. Soc. Ent. Fr. (6) vi. p. cxvii (1886); Kirby, Cat. Het. p. 93.
Syntomis leucoma, Leech, Entom. xxxi. p. 154 (1898).

♂. Black; frons white; antennæ white at tips; abdomen with seven crimson bands. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell and vein 2; a spot above vein 2 and a series of spots between veins 3 and 8, the spots above veins 5 and 7 small. Hind wing with hyaline patch below the cell extending between veins 2 and 5.

Both wings with veins 4 and 5 shortly stalked.

♀. Frons black; abdomen with six bands.

Ab. 1. *leucoma*. Abdomen with the bands orange.

Hab. Tibet, Omei-Shan; Coll. Leech. *Exp.* 32 millim.

120. **Syntomis celebesa.** (Plate III. fig. 8.)

Syntomis celebesa, Wlk. xxxi. 70 (1864); Kirby, Cat. Het. p. 97.
Syntomis gracilis, Röber, Iris, i. p. 30, pl. i. f. 7 (1886); Kirby, Cat. Het. p. 97.
Zygæna elvira, Pagenst. Ent. Nachr. xxii. p. 51 (1896).

Black-brown shot with purple; antennæ white at tips; thorax with lateral crimson patches; abdomen with crimson patch on basal segment; broad bands on the next three segments, the terminal segments with lateral crimson spots and a few hairs on dorsum. Fore wing with wedge-shaped hyaline patch in end of cell; a quadrate patch below end of cell and base of vein 2; a wedge-shaped patch above vein 6 and two spots between veins 3 and 5. Hind wing with elliptical hyaline spot below the cell.

Ab. 1. *gracilis*: abdomen with six bands complete; hind wing sometimes with small hyaline spot above vein 2.

Hab. Celebes (*Wallace*), 1 ♂, 1 ♀ type. *Exp.* 32 millim. Type † *gracilis* in Coll. Koser.

*121. **Syntomis aurofasciata.**

Syntomis aurofasciata, Swinh. Cat. Het. Mus. Oxon. p. 43, pl. 2. f. 19 (1892).

♀. Black with a purplish tinge, head and thorax greenish; frons, back of head, tegulæ, and patches on metathorax and pectus cupreous red; abdomen with cupreous red bands on first five segments and traces of a band on sixth segment. Fore wing with hyaline spot below base of cell; an oblique patch below origin of vein 2; a rather wedge-shaped spot in end of cell; an elongate streak above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline patch below base of cell and a spot between veins 2 and 5.

Hab. N. GUINEA (*Wallace*), 1 ♀ type+ in Mus. Oxon. *Exp.* 44 millim.

122. Syntomis passalis.

Zygæna cerbera, Sulzer, Gesch. Ins. pl. 20. f. 8 (1776), nec Linn.
Zygæna passalis, Fabr. Spec. Ins. ii. p. 159 (1781); Hmpsn., Moths Ind. i. p. 219; Kirby, Cat. Het. p. 92.
Sphinx cressa, Cram. Pap. Exot. iii. pl. 248. F (1782).
Syntomis latreillii, Boisd. Mon. Zyg. p. 117, pl. 7. f. 5 (1829).
Syntomis contigua, Butl. Journ. Linn. Soc., Zool. xii. p. 349 (1876); Kirby, Cat. Het. p. 95.

Black shot with metallic green and purple; antennæ whitish at extremity; thorax with two cupreous red streaks above patagia and lateral patches; 1st joint of tarsi and hind tibiæ yellowish white; abdomen with seven rather narrow cupreous red bands. Fore wing with some cupreous red at base and on base of inner margin; rounded or quadrate hyaline spot below base and in end of cell; an oblique patch below vein 2; a spot above vein 6, sometimes absent; a spot between veins 3 and 4 and a speck or spot between 4 and 5. Hind wing with a spot between veins 2 and 3, sometimes with a speck above it; and often one or two specks below end of cell.

Ab. 1. *montana*: all the spots large; hind wing with the two spots below end of cell conjoined into a bar.

Hab. 'INDIA,' type *montana* (*Eliott*); ASSAM; Calcutta, Moore Coll.; Bangalore (*E. Y. Watson*); Coimbatore (*Walhouse*); CEYLON (*Templeton, G. Lewis*). *Exp.* 36–44 millim.

123. Syntomis egenaria. (Plate III. fig. 9.)

Syntomis egenaria, Wlk. Journ. Linn. Soc., Zool. vi. p. 88 (1862); Kirby, Cat. Het. p. 97.

♂. Black-brown; antennæ white at tips; frons and tegulæ yellow; patagia and metathorax spotted with yellow; thorax with lateral yellow patches; abdomen with six yellow bands, the bands on 2nd, 3rd, 5th, and 6th segments narrow. Fore wing with fine yellow streak below costa; a basal spot and quadrate patch below base of cell; a quadrate spot in end of cell and oblique wedge-shaped patch below vein 2; a streak above middle of inner margin; an elongate spot above vein 6, usually with more or less developed spot above it; two spots between veins 3 and 5. Hind wing with the anal area expanded into a large lobe, which is folded and thickly scaled at margin;

yellow, with a broad terminal black band, the yellow area indented at vein 2; the costa black, expanding into a discoidal spot.

♀ with five yellow bands; hind wing of normal shape.

Hab. Borneo, Sarawak, 1 ♂ 1 ♀ (*Wallace*), Baram, 1 ♂ (*Everett*). *Exp.* 34 millim. Type † in Mus. Oxon.

124. Syntomis euryptera, n. sp. (Plate III. fig. 10.)

♂. Black-brown; antennæ white at tips; head and thorax almost entirely suffused with orange; abdomen with an orange band on each segment and the extremity orange. Fore wing with orange streak below costa; a large patch below base of cell; a wedge-shaped patch in end of cell; an elongate patch below vein 2 and sometimes a slight streak above it; a streak above middle of inner margin; two elongate spots between veins 3 and 5; a slight spot above 5 and elongate spots above veins 6 and 7. Hind wing orange, with terminal black band expanding somewhat below vein 2; the inner area very wide but hardly lobed.

♀. Hind wing with the inner area normal; black streaks on veins 2, 3, and 5 joining the terminal band.

Hab. Perak, 1 ♀; S.E. Borneo, 1 ♂ (*Doherty*), types. *Exp.*, ♂ 34, ♀ 36 millim.

125. Syntomis dilatata.

Syntomis dilatata, Snell. in Veth's Midden-Sumatra, Lep. p. 33 (1880) Pagenst. Jahrb. Nass. Ver. xxxviii. p. 12, pl. i. f. 6; Kirby, Cat. Het. p. 92.

♂. Black-brown; antennæ white at tips; frons and tegulæ yellow; patagia and metathorax spotted with yellow; thorax with lateral yellow patches; abdomen with six yellow bands, the bands on 2nd, 3rd, 5th, and 6th segments narrow. Fore wing with basal yellow spot; a quadrate spot below base of cell, and rounded spot in end of it; an oblique wedge-shaped spot below vein 2; a streak above middle of inner margin; an elongate spot above vein 6 with a small speck above it, and two spots between veins 3 and 5. Hind wing with the anal area expanded and very ample, but not produced to a lobe; yellow, with broad black terminal band, the yellow indented by the black area at vein 2; the costal area black, expanding into a discocellular spot.

♀. Abdomen with five bands of equal width; tarsi with the 1st joint yellow; hind wing of normal shape.

Hab. Sumatra, 1 ♀ (*Forbes*); Nias, 1 ♂; Borneo, Sandakan, 1 ♂ (*Pryer*). *Exp.* 35 millim.

126. Syntomis kinensis, n. sp. (Plate III. fig. 11.)

Black-brown; antennæ white at tips; frons and tegulæ orange; pectus with orange patches; abdomen with four orange bands, the 2nd and 3rd obsolescent on dorsum. Fore wing with rather wedge-shaped orange spots below base of cell and vein 2; a rounded or quadrate spot in end of cell; small spots beyond the cell between veins 3 and 5 and above 6. Hind wing with the basal half orange, truncate below costa, and only slightly indented below the cell; male with the whole terminal area, except the costa, thickened with large scales above and below; the wing short and broad.

Hab. Borneo, Kina Balu, 1 ♂ 1 ♀, types. *Exp.* 34 millim.

127. Syntomis geon.

Syntomis geon, Druce, P. Z. S. 1885, p. 519, pl. 32. f. 2; Kirby, Cat. Het. p. 97.

♂. Orange; antennæ black, whitish at tips; vertex of head, stripes on thorax, and legs blackish; abdomen with black segmental rings, and the extremity black. Fore wing with the veins and margins black; a slight black bar across middle of submedian interspace; a discocellular band and spot at origin of vein 2; the terminal band expanding towards apex and between veins 2 and 3. Hind wing with terminal black band broad at apex and dentate at vein 2.

Hab. Philippines, Mindanao, 1 ♂ (*Semper*). *Exp.* 34 millim. Type † in Coll. Druce.

128. Syntomis pfeifferæ.

Syntomis pfeifferæ, Moore, Lep. E. I. C. p. 324 (1859); id. P. Z. S. 1859, p. 198, pl. 60. f. 5; Kirby, Cat. Het. p. 96.
Syntomis acuminata, Snell. in Veth's Midden-Sumatra, Lep. p. 31, pl. iii. f. 5 (1880); Kirby, Cat. Het. p. 96.

Black-brown; antennæ white at tips; frons, tegulæ, and patagia yellow; metathorax suffused with yellow; thorax below and legs yellow; abdomen with seven yellow bands in male, six in female. Fore wing with a yellow streak below base of costa; a basal yellow line giving off a streak below the cell, expanding into a quadrate patch outwardly; a yellow spot in end of cell; an oblique elongate spot below vein 2; a streak above middle of inner margin; a spot above vein 6 and sometimes one above 7; two spots between veins 3 and 5. Hind wing with a yellow patch on basal area, produced to a rounded spot beyond lower angle of cell and another towards tornus.

Hab. Sumatra, 1 ♀, Moore Coll.; Java, 2 ♂ 1 ♀ (*Horsfield*), type. *Exp.*, ♂ 30, ♀ 36 millim. Type † *acuminata* in Coll. Snellen.

129. Syntomis wimberleyi.

Syntomis wimberleyi, Swinh. P. Z. S. 1889, p. 400, pl. 43. f. 11; Hmpsn. Moths Ind. i. p. 219; Kirby, Cat. Het. p. 96.

Black-brown; frons, tegulæ, and patagia orange; metathorax and thorax at sides with orange patches; abdomen with seven orange bands in male, six in female. Fore wing with round orange spot below base of cell and quadrate spot in end of it; a large spot below end of cell and vein 2; a spot above vein 6 with speck above 7, and two conjoined spots between veins 3 and 5. Hind wing with orange patch below the cell and between veins 3 and 5 with irregular outer edge.

Hab. Andamans (*Wimberley*), 1 ♂ 2 ♀, type Moore Coll. *Exp.*, ♂ 24, ♀ 28–34 millim.

130. Syntomis tenuis.

Syntomis tenuis, Wlk. vii. 1595 (1856); Snell. Tijd. v. Ent. xxii. p. 70, pl. vi. f. 2; Kirby, Cat. Het. p. 97.

Syntomis linearis, Wlk. xxxi. 77 (1864); Kirby, Cat. Het. p. 102.

♂. Black-brown; antennæ white at tips; frons and tegulæ orange; patagia and metathorax spotted with orange; thorax with lateral orange patches; abdomen with seven orange bands. Fore wing with wedge-shaped orange patch below base of cell, a quadrate patch in end of it; an oblique spot below vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with an orange patch below the cell and double spot between veins 2 and 5.

Hab. Celebes (*Pfeiffer*) 1 ♂ type, (*Fruhstorfer, Doherty*), 4 ♂ ♀. *Exp.* 28 millim. Type † *linearis* in Mus. Oxon.

Subsp. 1. *deflocca*, Swinh. Cat. Het. Mus. Oxon. p. 45 (1892).

Fore wing with the oblique spot below vein 2 extending almost to termen; hind wing with the spot between veins 2 and 5 represented by two streaks.

Philippines; type † in Mus. Oxon.

131. Syntomis tetragonaria. (Plate III. fig. 12.)

Syntomis tetragonaria, Wlk. Journ. Linn. Soc., Zool. vi. p. 87 (1862); Kirby, Cat. Het. p. 97.

♀. Black-brown; antennæ white at tips; frons and tegulæ orange; patagia and metathorax spotted with orange; thorax with lateral orange patches; abdomen with four orange bands. Fore wing with wedge-shaped orange patch below base of cell; a quadrate patch in end of cell; an oblique patch below vein 2; a large spot above veins 6 and 7, sometimes connected with the spots between veins 3 and 5 by a small spot above vein 5. Hind wing with orange patch in and below cell, confluent with a patch between veins 2 and 5.

Ab. 1. Fore wing with the two spots below the cell confluent.—Coll. Staudinger.

Hab. Borneo, Sarawak (*Wallace*), 3 ♀. *Exp.* 30 millim. Type † in Mus. Oxon.

132. **Syntomis chrysozona**, n. sp. (Plate III. fig. 21.)

♀. Black; antennæ white at tips; frons white; patagia with patches of orange; legs marked with white; abdomen with metallic golden bands on 1st, 3rd, 4th, and 5th segments; wings shot with purple, the markings pale semihyaline orange-red. Fore wing with the costal area greenish; the basal two-thirds of inner area golden; a semihyaline spot below base of cell; a wedge-shaped patch in end of cell; an oblique patch below vein 2; spots between veins 3 and 5 and a spot above 6. Hind wing with large basal patch in and below cell, and a spot beyond the cell between veins 2 and 5.

Hab. E. Africa, Usambara, 1 ♀, type. *Exp.* 34 millim.

*133. **Syntomis brithyris.** (Plate III. fig. 16.)

Syntomis brithyris, Druce, A. M. N. H. (7) i. p. 146 (1898).

♀. Brown; antennæ white at tips; frons, neck, patches on patagia, meso- and metathorax, pectus, and coxæ orange-yellow; abdomen with six orange bands. Fore wing with elongate orange patch below the cell and vein 2, with hyaline spot above it at base of vein 2; a hyaline spot in end of cell with some orange on its outer edge at lower angle; traces of an orange spot above base of vein 2 and two large spots above veins 3 and 4; a hyaline spot above vein 6. Hind wing with orange patch below base of cell and another between veins 2 and 3 just extending above vein 3.

Hab. Borneo, Sandakan (*Pryer*). *Exp.* 44 millim. Type † in Coll. Druce.

134. **Syntomis vitrea.** (Plate III. fig. 14.)

Syntomis vitrea, Wlk. vii. 1594 (1856); Hmpsn. Moths Ind. i. p. 218; Kirby, Cat. Het. p. 102.
Syntomis austeni, Moore, P. Z. S. 1879, p. 389; Kirby, Cat. Het. p. 95.
Syntomis polyzonata, Hmpsn. Trans. Ent. Soc. 1895, p. 298, and Moths Ind. iv. p. 466.

Black; frons and tips of antennæ white; tegulæ, patagia, a patch on mesothorax, and band on metathorax orange; thorax with lateral orange patches; tarsi with 1st joint white; abdomen with seven orange bands in male, six in female, and a patch on anal segment. Fore wing with elongate hyaline patch below the cell and vein 2, sometimes with teeth from median nervure and vein 1, which in the aberration *polyzonata* are connected into a complete band across its middle; a wedge-shaped patch in cell; elongate patches above veins 6 and 7 and between veins 2 and 5. Hind wing with hyaline patch in and below cell, orange towards inner margin and confluent with a patch between veins 2 and 5.

Fore wing with veins 2 and 3 arising near together; 5 and 6 also approximated.

Hab. Assam (*Godwin-Austen*), type *austeni*; Burma, Khyen

Hills, Moore Coll. (*Watson*), type *polyzonata*. *Exp.* 36 millim. Type † in Mus. Oxon.

135. Syntomis submarginalis. (Plate III. fig. 15.)

Syntomis submarginalis, Wlk. Char. Undescr. Het. p. 89 (1869); Hmpsn. Moths Ind. i. p. 218; Kirby, Cat. Het. p. 94.

Black; antennæ white at tips; head, tegulæ, patagia, and the greater part of thorax above and below orange-yellow; tarsi with the 1st joint white; abdomen with seven broad orange bands in male, six in female, the extremity orange. Fore wing with orange fasciæ below costa and above inner margin and patches between the veins of terminal area; a wedge-shaped hyaline patch below base of cell, another in cell; an oblique patch below end of cell and vein 2; a spot above vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with orange patches between the veins of terminal area; a hyaline patch below the cell extending into end of cell, the veins crossing it yellow; two spots between veins 2 and 5.

Ab. 1. With hardly a trace of yellow on apical area of fore wing. Khásis; Coll. Staudinger.

Hab. Sikhim (*Lidderdale*), Moore Coll.; Burma, Toungoo (*L. de Nicéville*), Bernardmyo. *Exp.* 36–40 millim. Type † in Mus. Exeter.

136. Syntomis sladeni.

Syntomis sladeni, Moore, P. Z. S. 1871, p. 245, pl. 18. f. 5; Hmpsn. Moths Ind. i. p. 217; Anderson's Researches in W. Yunnan, p. 927, pl. 81. f. 8; Kirby, Cat. Het. p. 96.

Black; frons, tegulæ, patagia, and spots on meso- and metathorax orange; thorax below and fore coxæ orange; tarsi with the 1st joint white; abdomen with seven orange bands in male, six in female, the extremity orange. Wings yellowish hyaline, the veins and margins narrowly black. Fore wing with vein 5 widely separated from 4 at origin and approximated to 6, the interspace between them filled in with black except towards termen.

Hab. Burma, E. Pegu, Bernardmyo, Khyen Hills, Upper Tenasserim; Yunnan, type Moore Coll. *Exp.* 36 millim.

*137. Syntomis acrospila.

Syntomis acrospila, Feld. Reis. Nov. iv. pl. 102. f. 11 (1875); Kirby, Cat. Het. p. 94.

Black; antennæ white at tips; frons, back of head, and neck orange; patagia, meso- and metathorax, pectus, and coxæ with orange patches; hind tarsi with the 1st joint orange; abdomen with seven orange bands in male, six in female, the extremity orange. Fore wing with orange mark at base; the hyaline markings yellowish and more or less prominently edged with orange; a quadrate spot below base of cell; a wedge-shaped patch in end of cell; an oblique elongate patch below vein 2; two elongate spots above veins 6, 7, and two between veins 3 and 5; a more or less developed orange apical patch and sometimes a small spot above vein 5. Hind wing with hyaline patch edged with orange below the cell and between veins 2 and 5 and extending into lower end of cell.

Ab. 1. Fore wing with the spots in submedian interspace confluent and not divided by a black bar. -Huang-Mu-Chang.

Hab. China, Shanghai, Nitou, Washan, Ta-chien-Lu. Coll. Leech. *Exp.* 16 millim.

138. Syntomis grotei.

Syntomis grotei, Moore, P. Z. S. 1871, p. 245, pl. 18. f. 4; Hmpsn. Moths Ind. i. p. 218; Kirby, Cat. Het. p. 95.

Head and thorax orange; antennæ and stripes on vertex of thorax black; tarsi with the 1st joint white; abdomen with seven orange bands in male, six in female, and the extremity orange. Fore wing hyaline, the veins and margins black; orange streaks on subcostal nervure and vein 1; a black spot at base below cell; a black bar across submedian interspace; veins 5 and 6 approximated, the interspace filled in with black except a small spot near termen; the terminal band wide at apex and between veins 2 and 3. Hind wing hyaline; the costa orange; the space above vein 5 black; the terminal band expanding into a spot at vein 2.

Hab. China, Hongkong (*Lloyd*); Burma, Upper Tenasserim (*Wood-Mason*); Yunnan (*Anderson*), type. *Exp.*, ♂ 32, ♀ 42 millim.

139. Syntomis polymita.

Sphinx polymita, Sparrm. Amoen. Acad. vii. p. 504, note (1769); Kirby, Cat. Het. p. 95.

Sphinx fenestrata, Drury, Ill. Exot. Ent. ii. pl. 28. f. 5 (1773); Fabr. Syst. Ent. p. 552; Boisd. Mon. Zyg. p. 124, pl. 8. f. 1.

Zygæna thelebus, Fabr. Mant. Ins. ii. p. 103 (1787); Kirby, Cat. Het. p. 95.

Black-brown; antennæ white at tips; frons, a ring round neck, patagia, and patches on vertex and sides of thorax orange; abdomen with seven orange bands and the extremity orange. Fore wing with orange streaks on subcostal and median nervures and vein 1; a hyaline patch below base of cell; a truncate wedge-shaped patch in end of cell and oblique patch below the end; an elongate hyaline spot above vein 6, usually with a small spot above vein 7; two spots between veins 3 and 5, with vein 4 between them orange. Hind wing with the median nervure and vein 1 streaked with orange; a hyaline patch below the cell becoming orange towards inner margin and confluent with a spot between veins 2 and 5.

Ab. 1. Fore wing with the hyaline patch in submedian interspace undivided, a spot above base of vein 2.

Hab. China, Hongkong (*Bowring*, *Harrington*); Tonkin (*Buckland*). *Exp.* 34 millim.

140. Syntomis germana.

Syntomis fenestrata, Herr.-Schäff. Aussereur. Schmett. f. 270 (nec Drury).
Syntomis germana, Feld. Wien. Ent. Mon. vi. p. 37 (1862); Kirby, Cat. Het. p. 95.
Syntomis mandarinia, Butl. Journ. Linn. Soc., Zool. xii. p. 349 (1876); Kirby, Cat. Het. p. 97.

Black; antennæ white at tips; frons orange; thorax with orange patches on meso- and metathorax and at sides; 1st joint of tarsi whitish; abdomen with seven orange bands and the extremity orange; wings slightly shot with purple. Fore wing with orange spot at base; a quadrate orange-hyaline patch below the base of cell; another in end of cell; an oblique patch below vein 2; a spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline yellow patch in and below the cell and between veins 3 and 5.

Hab. JAPAN (*Jonas*, *Fenton*); CHINA, Nankow Pass, Shanghai (*Pryer*), type *mandarinia*; CHUSAN (*J. J. Walker*). *Exp.*, ♂ 32, ♀ 40 millim.

*141. Syntomis chlorocera. (Plate III. fig. 22.)

Syntomis chlorocera, Hmpsn. Moths Ind. i. p. 218 (1892).

♂. Black-brown; antennæ yellow and thickly scaled above; vertex of head yellow; 1st joint of tarsi and part of hind tibiæ yellow; abdomen with a yellow band on each segment and the extremity yellow. Fore wing with quadrate hyaline spot below base of vein 2; a wedge-shaped spot in end of cell; two spots between veins 3 and 5, and a small spot above vein 6. Hind wing with yellow patch below the cell, and small spots between bases of veins 2 and 5.

Hab. ASSAM, Naga Hills. *Exp.* 20 millim. Type † in Coll. Elwes.

142. Syntomis fervida.

Syntomis fervida, Wlk. i. 131 (1854); Butl. Ill. Het. i. p. 18, pl. 6, f. 16; Hmpsn. Moths Ind. i. p. 217; Kirby, Cat. Het. p. 95.

♀. Head and thorax orange; antennæ, vertex of head, and stripes on thorax black; thorax below with lateral orange patches; tarsi with the 1st joint white; abdomen with six orange bands, the extremity shot with metallic green; wings hyaline yellow. Fore wing with orange streaks below costa and on vein 1; a black spot on discocellulars; the veins of outer area narrowly black; the terminal black line expanding at apex and between veins 2 and 3. Hind wing with the veins orange; the terminal black band expanding at apex and below vein 2.

Hab. BURMA, Moulmein (*Clerk*), type; E. Pegu. *Exp.* 38 millim.

143. Syntomis newara. (Plate III. fig. 18.)

Syntomis newara, Moore, Lep. Atk. p. 12 (1879); Hmpsn. Moths Ind. i. p. 217; Kirby, Cat. Het. p. 102.

♀. Head and thorax orange; antennæ and vertex of head black; abdomen black, with six orange bands; wings hyaline yellow, the veins and margins narrowly black. Fore wing with discoidal black spot; the terminal band wide on apical area, expanding inwards above veins 5 and 2.

Hab. SIKHIM, 1 ♀ type; BHUTAN. *Exp.* 44 millim.

*144. Syntomis euryzona. (Plate III. fig. 19.)

Syntomis euryzona, Leech, Entom. xxxi. p. 153 (1898).

♂. Black; antennæ white at tips; frons and patches on meso- and metathorax and pectus orange; tarsi with the 1st joint white; abdomen with seven orange bands. Fore wing with confluent orange-hyaline markings, the veins black; a wedge-shaped patch in cell; an elongate patch below cell and streak below vein 1, a spot above vein 2, and elongate spots between veins 3 and 7; the margins very broadly black; cilia white just below apex. Hind wing with large orange-hyaline patch below the cell confluent with spots between veins 2 and 5.

Hab. TIBET, Moupin, 1 ♂ type † in Coll. Leech. *Exp.* 44 millim.

*145. Syntomis xanthoma. (Plate III. fig. 20.)

Syntomis xanthoma, Leech, Entom. xxxi. p. 152 (1898).

♂. Black; antennæ white towards tips; frons, spots on shoulders, pectus, and coxæ pale yellow; tarsi with the 1st joint white; abdomen with seven orange bands; wings with small hyaline yellow spots. Fore wing with some yellow at base of inner margin; quadrate hyaline yellow spots below base and in end of cell; a small spot above base of vein 2 and spot below its middle; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with two conjoined spots below base of cell, and small spots between veins 2 and 5.

Hab. CHINA. Kwei-chow, type † in Coll. Leech. *Exp.* 42 millim.

*146. Syntomis pasca.

Syntomis pascus, Leech, Trans. Ent. Soc. 1889, p. 124, pl. 9. f. 1; Kirby, Cat. Het. p. 94.

Black-brown; antennæ white at tips; frons yellowish white; meso- and metathorax and pectus with orange patches; tarsi with the 1st joint white; abdomen with seven orange bands in male, six in female. Fore wing with orange point at base; a quadrate orange-hyaline spot below base of cell and another in end of cell; an oblique patch below end of cell and vein 2, and a small spot above vein 2;

an elongate spot above vein 6, sometimes with small spot above 7; two spots between veins 3 and 5. Hind wing with orange-hyaline patch below the cell and between veins 2 and 5.

Hab. China, Kiukiang, type †; Tibet, Moupin, in Coll. Leech. *Exp.*, ♂ 46, ♀ 52 millim.

*147. Syntomis torquata.

Syntomis torquatus, Leech, Trans. Ent. Soc. 1889, p. 124, pl. 9. f. 2; Kirby, Cat. Het. p. 92.

♂. Black; tegulæ orange; pectus with orange patches; abdomen with seven orange bands. Fore wing with quadrate hyaline yellow spots below base and in end of cell; an oblique spot below vein 2, a spot above vein 6, and two spots between veins 3 and 5; cilia yellowish below apex. Hind wing with yellowish hyaline patch below cell, conjoined to spots between veins 2 and 5 and to a small spot in end of cell.

Hab. China, Kiukiang, type † in Coll. Leech. *Exp.* 32 millim.

148. Syntomis muirheadi. (Plate III. fig. 13.)

Syntomis muirheadi, Feld. Wien. Ent. Mon. vi. p. 37 (1862); Kirby, Cat. Het. p. 95.

♂. Black; antennæ white at tips; frons, tegulæ, patagia, and patches on meso- and metathorax, and on thorax below and coxæ orange-yellow; 1st joint of tarsi white; abdomen with seven orange bands; wings shot with purple. Fore wing with elongate hyaline patch below the cell and vein 2; a wedge-shaped patch in cell; a spot above vein 2, and five spots between veins 3 and 8, the spot above 5 shorter and wedge-shaped; the whole of these markings may be edged with golden yellow; the subcostal, median nervure, and a broad fascia on and below vein 1 yellow, or the yellow may be reduced to slight streaks below the costa, on median nervure, and below vein 1. Hind wing with hyaline patch in and below cell confluent with two spots between veins 2 and 5, the veins crossing it golden yellow.

Hab. China, Hongkong, 2 ♂ (*J. C. Bowring*). *Exp.* 50 millim.

Subsp. 1. *aucta*, Leech, Entom. xxxi. p. 153 (1898).

Fore wing with the hyaline patch filling end of cell; the patch in submedian interspace extending below vein 1 at extremity; no spot above vein 5.

Hab. Kwei-chow, type † in Coll. Leech. *Exp.* 34 millim.

149. Syntomis masoni.

Syntomis masoni, Moore, P. Z. S. 1878, p. 845, pl. 53. f. 4; Hmpsn. Moths Ind. i. p. 215; Kirby, Cat. Het. p. 95.

Syntomis davidi, Pouj. Bull. Soc. Ent. Fr. (6) iv. p. cxxxvi (1885); Kirby, Cat. Het. p. 96.

Black shot with metallic green; frons white; antennæ white at tips; tegulæ, patagia, and patches on meso- and metathorax orange; thorax below and 1st joint of tarsi whitish; abdomen with seven orange bands; wings hyaline, the veins and margins black. Fore wing with yellow patch at base and fine streak on vein 1; the costal area black and the interspace between veins 5 and 6; the terminal band wide at apex and between veins 2 and 3.

Hab. Tibet, Moupin; Upper Tenasserim, 1 ♂ 1 ♀, types. *Exp.*, ♂ 42, ♀ 48 millim.

150. Syntomis melæna.

Syntomis melas, Wlk. i. 123 (1854); Butl. Ill. Het. i. p. 17, pl. 6. f. 10; Hmpsn. Moths Ind. i. p. 216; Kirby, Cat. Het. p. 94.
Syntomis andersoni, Moore, P. Z. S. 1871, p. 244, pl. 18. f. 1; Anderson's Researches in W. Yunnan, p. 926, pl. 81. f. 4; Kirby, Cat. Het. p. 96.

Black shot with metallic blue and purple; antennæ white at tips; frons white; vertex of head, tegulæ, patagia, patches on meso- and metathorax above and thorax at sides orange-yellow; coxæ with white spots; abdomen with seven orange bands in male, six in female, the band on 1st segment white at sides, the bands on ventral surface white, extremity metallic blue. Fore wing with slight yellow streaks below costa, on median nervure, and on and below vein 1; the interspaces hyaline, leaving the veins and margins purple-black; a broad discocellular band; the terminal band broad towards apex and sending a tooth inwards above vein 5, and broad again between veins 2 and 3. Hind wing hyaline, the veins and margins purplish black, broadly so on outer half of costa and on termen towards apex and at vein 2.

Hab. Nepal, type *melæna*; Sikhim (*Lidderdale*); Assam, Khásis; Burma, Khyen Hills; Yunnan, type *andersoni*. *Exp.*, ♂ 38, ♀ 54 millim.

*151. Syntomis basigera. (Plate III. fig. 23.)

Syntomis basigera, Wlk. xxxi. 77 (1864); Kirby, Cat. Het. p. 101.

♀. Black; frons, back of head, tegulæ, patagia, patches on thorax, metathorax, pectus, and coxæ orange; abdomen with orange bands on first six segments. Fore wing with slight orange streaks below base of median nervure and vein 1; a wedge-shaped hyaline patch in cell; an elongate patch below the cell extending almost to termen; elongate spots between veins 3 and 5 and above vein 6, and a small point above vein 7. Hind wing with the basal half orange, with irregular outer edge embracing two small hyaline spots between veins 2 and 5.

Hab. Batchian (*Wallace*), 1 ♀ type + in Mus. Oxon. *Exp.* 30 millim.

*152. Syntomis consequa. (Plate V. fig. 2.)

Syntomis consequa, Leech, Entom. xxxi. p. 153 (1898).

♀. Head, thorax, and abdomen black; antennæ white at tips frons grey, yellowish above; tegulæ orange; abdomen with six orange bands, reduced on ventral surface to incomplete segmental fringes. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below cell and vein 2 extending nearly to tornus; an elliptical spot above 2; elongate spots between veins 3 and 5 and above 6, and small streaks above 5 and 7. Hind wing with hyaline fascia below the cell and between veins 2 and 3, extending as a point above 3.

Hab. TIBET, Moupin; type† in Coll. Leech. *Exp.* 30 millim.

153. Syntomis perixanthia, n. sp. (Plate III. fig. 17.)

Syntomis perixanthia, Leech, Entom. xxxi. p. 152 (1898), non descr.
Syntomis persimilis, Leech, Entom. xxxi. p. 152 (1898).

Black; antennæ white at tips; frons, tegulæ, patagia, and patches on metathorax and sides of thorax orange; tarsi with the 1st joint white; abdomen with basal orange patch and five bands. Fore wing with the base of costa and inner margin streaked with orange-yellow; a quadrate hyaline patch below base of cell; a wedge-shaped patch occupying the cell; an oblique patch below vein 2 and spot above 2; an elongate spot above vein 6 and streak above 7; two spots between veins 3 and 5. Hind wing with hyaline patch in and below cell, confluent with a patch between veins 2 and 5, the margins of the patch and the veins crossing it orange-yellow.

Ab. 1. *persimilis.* Tegulæ black.—Ni-tou, Coll. Leech.

Hab. FORMOSA, 1 ♀ type; CHINA, Washan, Omei Shan; TIBET, Moupin, Coll. Leech. *Exp.* 38 millim.

*154. Syntomis signata. (Plate III. fig. 24.)

Syntomis signata, Wlk. vii. 1594 (1856).

♀. Black; frons, tegulæ, patagia, and patches on thorax and pectus orange; tarsi with the 1st joint white; abdomen with orange bands on first six segments, the extremity suffused with blue. Fore wing with slight orange mark at base of inner margin; a wedge-shaped hyaline patch in cell; a spot below base of cell; an elongate patch below middle of cell and vein 2, and spots between veins 2 and 5, extending almost to termen; an elongate spot above vein 6 and streak above 7. Hind wing hyaline, the veins and margins black; the terminal band irregular and expanding at apex and below vein 2.

Hab. JAVA (*Wallace*), 1 ♀ type † in Mus. Oxon. *Exp.* 34 millim.

155. Syntomis luteifascia. (Plate III. fig. 25.)

Syntomis luteifascia, Hmpsn. Moths Ind. i. p. 218 (1892).

♂. Black; antennæ white at tips; frons, tegulæ, and patches on patagia, vertex of thorax, and pectus orange; fore tarsi with some white on 1st joint; abdomen with orange band on each segment, the extremity black. Fore wing with orange spot at base of inner margin; a round hyaline spot below base of cell; a wedge-shaped patch in cell; a conical patch below end of cell and vein 2; elongate patches above veins 3, 4, 6, and 7, and a minute point above 5. Hind wing with the base of inner area orange; a hyaline patch below the cell; a point in cell and a patch between veins 2 and 5.

Hab. ASSAM, Nága Hills, 6000 feet (*Doherty*), 1 ♂ co-type. *Exp.* 34 millim. Type + in Coll. Elwes.

156. Syntomis berinda.

Syntomis berinda, Moore, P. Z. S. 1878, p. 845, pl. 53. f. 8; Hmpsn. Moths Ind. i. p. 219; Kirby, Cat. Het. p. 94.

Black-brown; frons, tegulæ, and patagia orange; antennæ white at tips; metathorax and pectus with lateral orange patches; tarsi with the 1st joint white; abdomen with seven orange bands. Fore wing with round hyaline yellow spot below base of cell; a quadrate patch in end of cell; a large spot below end of cell and vein 2; a spot above vein 6 with speck above 7; two spots between veins 3 and 5; cilia white below apex. Hind wing with orange-hyaline patch below the cell and between veins 2 and 5, its outer edge irregular.

Hab. BURMA, Moulmein, Tenasserim (*Wood-Mason, L. de Nicéville*), 1 ♂ 3 ♀, type. *Exp.* 32–44 millim.

157. Syntomis formosæ. (Plate III. fig. 26.)

Syntomis formosæ, Butl. Journ. Linn. Soc., Zool. xii. p. 346 (1876); Kirby, Cat. Het. p. 92.
Syntomis cmuna, Butl. Journ. Linn. Soc., Zool. xii. p. 350 (1876); Kirby, Cat. Het. p. 92.

Black; tegulæ orange; abdomen with orange bands on each segment, the bands somewhat obsolescent except on basal and 5th segments, the extremity black. Fore wing with quadrate hyaline spot below base of cell; a truncate patch in end of cell; an oblique patch below vein 2; a postmedial spot above vein 6 and two spots between veins 3 and 5; cilia white at apex. Hind wing with hyaline patch below the cell, slightly yellow towards inner margin and confluent with a patch between veins 2 and 5.

Hab. CHINA, Foochow (*G. T. Lay, De la Touche*); FORMOSA (*W. Campbell*), and type from Moore Coll.; CHUSAN I. (*J. J. Walker*); ASSAM, Margarita; BURMA, E. Pegu, 2000 ft., in Coll. Elwes. *Exp.*, ♂ 26, ♀ 28 millim.

158. Syntomis divisa.

Syntomis divisa, Wlk. i. 131 (1854); Butl. Ill. Het. i. p. 16, pl. 6. f. 14; Hmpsn. Moths Ind. i. p. 215; Kirby, Cat. Het. p. 94.
Syntomis disrupta, Moore, P. Z. S. 1878, p. 845, pl. 53. f. 5; Kirby, Cat. Het. p. 95.

Black shot with metallic green; frons, gulæ, and tips of antennæ white; tegulæ, meso- and metathorax with orange patches; thorax below with orange patches; tarsi with the 1st joint white; abdomen with five orange bands. Fore wing with white basal patch and streak below vein 1; a hyaline streak below base of costa; a wedge-shaped patch in cell; a patch below base of cell; an oblique patch below end of cell and vein 2; elongate patches above veins 6 and 7; a patch above vein 2 and two between veins 3 and 5. Hind wing with a patch below the cell, becoming orange at inner margin and often confluent with the patch between veins 2 and 5.

The hyaline patches vary much in extent; in Sikhim specimens they are smallest, one having the spot above vein 7 of fore wing absent; in examples from Sylhet they are larger; largest in Burmese specimens, this last being the form named *disrupta*.

Hab. SIKHIM, Moore Coll.; ASSAM, Sylhet, type, Khásis; BURMA, Khyen Hills, Upper Tenasserim, type *disrupta*, Dawnat Range (*L. de Nicéville*). *Exp.* 36–40 millim.

159. Syntomis compta. (Plate V. fig. 1.)

Syntomis compta, Wlk. Char. Undescr. Het. p. 89 (1869); Kirby, Cat. Het. p. 95.

♂. Head and thorax black; frons, tegulæ, patagia, and patches on thorax, pectus, and legs orange; abdomen greenish black with five orange bands; wings hyaline, the veins and margins black. Fore wing with orange streaks below costa and above inner margin; the interspaces between veins 5 and 6 black; the terminal band expanding towards apex and slightly above vein 2. Hind wing with the costa and inner margin orange; the terminal black band expanding towards apex and dentate below vein 2.

Hab. ASSAM, Khasi Hills, 1 ♂ (*Godwin-Austen*). *Exp.* 38 millim. Type† in Mus. Exeter.

160. Syntomis pentazonata, n. sp. (Plate III. fig. 27.)

Black with a slight purple gloss; frons, tegulæ, and large spots on patagia orange; thorax with lateral orange spots; antennæ white at tips; tarsi with the 1st joint white; abdomen with five orange bands. Fore wing with quadrate yellowish hyaline spot below base of cell; a wedge-shaped patch in end of cell; an oblique patch below vein 2 extending nearly to termen; a spot above vein 6 and small spot above 7; two large spots between veins 3 and 5; cilia white below apex. Hind wing with hyaline spot below the cell, becoming orange towards inner margin; a postmedial spot between veins 2 and 5.

Hab. BURMA, N. Khyen Hills (*E. Y. Watson*), 1 ♂ 1 ♀, types. *Exp.* 30–36 millim.

161. Syntomis albifrons.

Syntomis albifrons, Moore, P. Z. S. 1878, p. 845, pl. 53. f. 6; Hmpsn. Moths Ind. i. p. 216; Kirby, Cat. Het. p. 95.

♀. Black shot with purple; frons, tegulæ, patagia, and two patches on mesothorax pure white; metathorax and sides of thorax with orange patches; abdomen shot with metallic green, with four narrow orange bands, and ventral white band on 5th segment. Fore wing with wedge-shaped hyaline patch in the cell; an elongate patch below the cell and vein 2, narrowing outwardly; a small spot above 2 usually present; a series of elongate spots between veins 3 and 8, the spot above vein 5 shorter or linear. Hind wing with hyaline patch below the cell, confluent with spots between veins 2 and 5.

Hab. Burma, Upper Tenasserim, 2 ♀ (*Wood-Mason*), types, Dawnat Range, 1 ♂ (*L. de Nicéville*). *Exp.* 60 millim.

*162. Syntomis dichotoma. (Plate IV. fig. 1.)

Syntomis dichotoma, Leech, Entom. xxxi. p. 153 (1898), & var. *concurrens*.

♂. Black; head, thorax, and abdomen with a greenish tinge; tips of antennæ and frons white; pectus and coxæ with yellow patches; tarsi with the 1st joint white; abdomen with orange bands on first four segments. Fore wing with quadrate hyaline spot below base of cell and wedge-shaped patch in end of cell; an elongate spot below vein 2 with small spot at its base; three spots between veins 2 and 5 and spots above veins 6 and 7; cilia white at apex. Hind wing with hyaline patch below the cell, becoming orange on inner margin and confluent with a patch between veins 2 and 5.

♀ with the small spot at base of vein 2 of fore wing confluent with the elongate spot below it; cilia not white at apex.

Ab. 1. *concurrens.* Fore wing with the spots in submedian interspace confluent and not separated by a black bar.—Kia-Ting-Fu.

Hab. Tibet, Moupin, type †, Kia-Ting-Fu, in Coll. Leech. *Exp.*, ♂ 42, ♀ 50 millim.

*163. Syntomis quadrifascia. (Plate IV. fig. 2.)

Syntomis quadrifascia, Hmpsn. Moths Ind. i. p. 215 (1892).

♂. Black; frons and tips of antennæ white; abdomen with four orange bands. Fore wing with wedge-shaped hyaline patch in cell and elongate patch below the cell extending almost to termen; elongate patches between veins 3 and 5 and above vein 6. Hind wing with small spot in cell; a large patch below the cell, and patches between veins 2 and 5.

Hab. Burma, Bernardmyo, 6000 feet, 1 ♂, Coll. Elwes, type †. *Exp.* 38 millim.

164. **Syntomis flavifrons.** (Plate IV. fig. 3.)

Syntomis flavifrons, Hmpsn. Moths Ind. i. p. 215 (1892).

Black; antennæ white at tips; frons, a line behind the eyes, and patches on tegulæ, patagia, sides of thorax, and fore coxæ orange; 1st joint of tarsi white; abdomen with four orange bands, the two middle ones narrow. Fore wing with subquadrate hyaline spots below base and in end of cell, below origin of vein 2, between veins 3 and 5, and above vein 6; cilia white below apex. Hind wing with hyaline spot below cell, becoming yellow towards inner margin, and a spot between veins 2 and 5.

Hab. Assam, Khásis; Burma, Momeit, 2000 feet. *Exp.* 34–38 millim. Type † in Coll. Elwes.

165. **Syntomis tetrazonata,** n. sp. (Plate IV. fig. 4.)

Black; tegulæ orange; hind tarsi with the 1st segment white; abdomen with four orange bands. Fore wing with small rounded hyaline spot below base of cell; a quadrate patch in end of cell; an oblique wedge-shaped patch below vein 2; an elongate spot above vein 6, and two spots between veins 3 and 5. Hind wing with hyaline patch below base of cell confluent with a patch between veins 2 and 5.

Hab. Formosa (*W. Campbell*), 1 ♂ type. *Exp.* 28 millim.

*166. **Syntomis creobota.** (Plate III. fig. 28.)

Syntomis creobota, Holland, Psyche, vi. p. 393 (1893).

♂. Black suffused with bluish purple; pectus with orange patches; tarsi white; abdomen with orange bands on first four segments not extending to ventral surface. Fore wing with small round hyaline spot below base of cell; a quadrate spot in end of cell; an oblique wedge-shaped spot below vein 2, and elongate spots between veins 3 and 5 and above 6. Hind wing with hyaline spot below the cell and small rounded spot between veins 2 and 3.

Hab. W. Africa, Ogové R. *Exp.* 34 millim. Type † in Coll. Holland.

*167. **Syntomis persica.** (Plate IV. fig. 5.)

Syntomis persica, Koll. Denkschr. Akad. Wiss. Wien, Math.-nat. Classe, i. p. 53, n. 13 (1850); Kirby, Cat. Het. p. 95.

♂. Black shot with purple and greenish; abdomen with dorsal orange patch on 1st segment, dorsal and lateral bands on 3rd and 4th segments, and a complete band on 5th segment. Fore wing with quadrate pale yellow patches below base of cell, vein 2, and in end of cell; postmedial elongate spots above vein 6 and between veins 3 and 5. Hind wing with large pale yellow patch in and below cell confluent with a patch beyond the cell.

Hab. S. Persia. *Exp.* 38 millim. Type † in Mus. Vienna.

168. **Syntomis ribbei.** (Plate IV. fig. 6.)

Syntomis ribbei Rober. Iris, i. p. 29. pl. i. f. 6 (1885). Kirby, Cat. Het. p. 97.

Syntomis polusca, Druce, A. M. N. H. (6) xv. p. 43 (1895).

♂. Black: abdomen with orange bands on first three segments, those on 2nd and 3rd narrow; lateral spots on 4th and 5th segments; wings shot with brilliant purple-blue. Fore wing with slight orange mark at base of inner margin; a wedge-shaped hyaline patch in cell; a small spot below base of cell and another above vein 1 towards tornus; spots above veins 2, 3, 4, and 6. Hind wing with the base orange, with irregular outer edge.

♀ with the spots in submedian interspace large and elongate.

Hab. Celebes, Minahassa, 1 ♂, ♀ Coll. Staudinger. *Exp.* 30 millim. Type† *polusca* in Coll. Druce.

169. **Syntomis johanna.** (Plate IV. fig. 7.)

Syntomis johanna, Butl. Journ. Linn. Soc., Zool. xii. p. 348 (1876). Kirby Cat. Het. p. 92.

Syntomis anna, Butl. Journ. Linn. Soc., Zool. xii. p. 348 (1876). Kirby, Cat. Het. p. 92.

Head, tegulæ, and patagia black; antennæ whitish at tips; thorax shot with deep blue; a pair of lateral yellowish spots; some white on pectus and fore legs; abdomen blue-black, with orange bands on 3rd, 4th, and 5th segments, and usually a patch on basal segment; wings shot with purple and blue. Fore wing with quadrate hyaline white patch below base of cell and another in end of cell; a large oblique patch below end of cell and vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5; cilia white near apex. Hind wing with large hyaline white patch below the cell and large round spot between veins 2 and 3.

The normal form *anna* has the orange patch on basal segment of abdomen more or less developed, whilst *johanna* has it entirely wanting.

Hab. S. Africa, Knysna, 4 ♂ 1 ♀ (*R. Trimen*), types *anna* and *johanna*. *Exp.* 32 millim.

170. **Syntomis pryeri**, n. sp. (Plate IV. fig. 8.)

♀. Black; frons, tegulæ, and patches on patagia, metathorax, fore coxæ, and sides of thorax orange-yellow; abdomen with orange bands on basal and 5th segments, and lateral spots on intermediate segments. Fore wing with the basal area black; a small orange spot at base and larger spot below base of cell; the rest of the wing hyaline, with the veins and margins narrowly black, rather more broadly at apex. Hind wing black, with orange patch below base of cell and spot between veins 2 and 3.

Fore wing with veins 4 and 5 widely separated at origin.

Hab. N.E. Borneo, Sandakan (*W. B. Pryer*), 1 ♀ type. *Exp.* 36 millim.

171. Syntomis gelatina.

Syntomis gelatina, Hmpsn. Ill. Het. viii. p. 43, pl. 139. f. 1 (1890); id. Moths Ind. i. p. 214; Kirby, Cat. Het. p. 92.

Head, thorax, and abdomen bronze-brown; antennæ white at tips; neck with an orange ring; tarsi with the 1st joint white; abdomen with orange-red bands on basal and 5th segments and lateral spots on the intermediate segments; wings yellowish hyaline, the veins and margins black shot with purple. Fore wing with the terminal band broad at veins 2 and 3 and from vein 5 to apex; the interspace between veins 5 and 6 black, with small hyaline spot. Hind wing with the terminal band broadest at apex and vein 2.

Hab. S. INDIA, Nilgiri plateau (*Hampson*), 1 ♂ 2 ♀, type. *Exp.*, ♂ 24, ♀ 28 millim.

172. Syntomis extensa.

Syntomis extensa, Wlk. xxxv. 1863 (1866); Hmpsn. Moths Ind. i. p. 214; id. Ill. Het. viii. pl. 143. f. 14; Kirby, Cat. Het. p. 98.

Brown; antennæ white at tips; a ring behind head orange; tarsi with the 1st joint white; abdomen with orange dorsal patch on 1st segment, a band on 5th, and lateral spots on intermediate segments. Fore wing elongate; a hyaline patch below basal part of cell; a truncate wedge-shaped patch in end of cell; sometimes a small spot above vein 2; a triangular spot above vein 5 and an elliptical spot above 6. Hind wing with a small spot below the cell, often with another between it and inner margin, or these may be developed into a large patch.

In the type the spots of the fore wing are all confluent.

Hab. BOMBAY, Mahableshwar, Matheran (*Swinhoe*); NILGIRIS (*Walhouse*), type, (*Lindsay*, *Hampson*). *Exp.* 42–50 millim.

173. Syntomis khasiana. (Plate IV. fig. 9.)

Syntomis khasiana, Butl. Journ. Linn. Soc., Zool. xii. p. 345 (1876); Kirby, Cat. Het. p. 94.

Black shot with purple; frons yellow; tegulæ and patagia yellow; thorax with lateral yellow patches; tarsi with the 1st joint white; abdomen with orange bands on 1st and 5th segments and with lateral spots on intermediate segments, sometimes forming nearly complete bands. Fore wing with rounded hyaline spot below base of cell and quadrate spot in end of it; an oblique patch below vein 2; a spot above vein 6 and two spots between veins 3 and 5; cilia white below apex. Hind wing with hyaline patch below the cell, yellow at inner margin, and a spot between veins 2 and 5.

Hab. ASSAM, Khási Hills, 1 ♂ 2 ♀, Moore Coll., type. *Exp.* 30–36 millim.

174. Syntomis lucina. (Plate IV. fig. 10.)

Syntomis lucina, Butl. Journ. Linn. Soc., Zool. xii. p. 345 (1876); Hmpsn. Moths Ind. i. p. 214; Kirby, Cat. Het. p. 91.

Black; frons and a line behind the eyes pale yellow; antennæ tipped with white; thorax with lateral spots; abdomen with yellow bands on basal and 5th segments and with lateral spots on the intermediate segments. Fore wing with rounded yellowish hyaline spot below base of cell and another in end of cell; an oblique wedge-shaped spot below basal part of vein 2; a postmedial spot above vein 6, and two spots between veins 3 and 5. Hind wing with hyaline yellow spot below base of cell and a spot between veins 2 and 5.

Hab. NEPAL, type; SIKHIM (*Lidderdale*); Calcutta, Moore Coll. *Exp.* 34 millim.

175. Syntomis edwardsi. (Plate IV. fig. 11.)

Syntomis edwardsi, Butl. Journ. Linn. Soc., Zool. xii. p. 346 (1876); Kirby, Cat. Het. p. 92.

♂. Black shot with blue-green; tegulæ orange; abdomen with orange bands on basal and 5th segments and lateral spots on the intermediate segments. Fore wing with quadrate hyaline spot below base of cell and another in end of cell; an oblique patch below vein 2; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline spot below the cell, becoming orange towards inner margin and conjoined to a hyaline spot between veins 2 and 3.

Hab. FORMOSA, 1 ♂, Moore Coll., type. *Exp.* 30 millim.

176. Syntomis fortunei. (Plate IV. fig. 12.)

Syntomis fortunei, De l'Orza, Lep. Jap. p. 38 (1869); Kirby, Cat. Het. p. 92.

Syntomis crebina, Butl. Trans. Ent. Soc. 1881, p. 5; Kirby, Cat. Het. p. 90.

Black slightly shot with metallic blue; antennæ whitish at tips; abdomen with orange bands on basal and 5th segments and a lateral series of spots on the intermediate segments. Fore wing with quadrate yellowish hyaline spot below the cell; a quadrate patch in end of cell, and another obliquely placed below base of vein 2; a postmedial spot above vein 6 and two between veins 3 and 5. Hind wing with large yellowish hyaline patch below the cell and vein 2 conjoined to spots above veins 2 and 3.

Ab. 1. A specimen from Yezo has the two spots in submedian interspace of fore wing conjoined as an elongate patch, with a slight yellow streak below vein 1 and speck above vein 2; the spot above vein 6 elongate.

Ab. 2. *crebina*. The hyaline spots of fore wing obsolete, the postmedial series replaced by small yellow spots; hind wing with the hyaline marks obsolescent and replaced by yellow patches.

Hab. JAPAN, Yezo (*G. Lewis*), Tokio (*Fenton*), type *erebina*, (*Jonas, W. Andrews*). *Exp.* 36–40 millim.

177. Syntomis cyssea.

Sphinx cysseus, Stoll. Pap. Exot. iv. p. 124, pl. 355. B (1782); Hmpsn. Moths Ind. i. p. 213; Kirby, Cat. Het. p. 90.
Zygæna collaris, Fabr. Ent. Syst. 3. i. p. 388 (1793).
Syntomis schœnerrhi, Boisd. Mon. Zyg. p. 112, pl. 7. f. 1 (1829).
Syntomis cuprea, Pritw. Stett. Ent. Zeit. xxviii. p. 277 (1867).
Syntomis georgina, Butl. Journ. Linn. Soc., Zool. xii. p. 345 (1876); Hmpsn Moths Ind. i. p. 213, & iv. p. 465; Kirby, Cat. Het. p. 91.
Syntomis cysseoides, Butl. Journ. Linn. Soc., Zool. xii. p. 346 (1876) Moore, Lep. Ceyl. ii. p. 35, pl. 95. f. 1; Kirby, Cat. Het. p. 90.

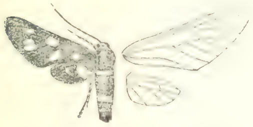

Fig. 36.—*Syntomis cyssea*, ♂. $\frac{1}{1}$.
(From Moths Ind. vol. i.)

Black-brown; frons and neck orange; antennæ white at tips; thorax with lateral yellow spots; 1st joint of hind tarsi white; abdomen with orange bands on basal and 5th segments; wings very slightly shot with purple; a rounded hyaline white or yellowish spot below base of cell; a quadrate patch in end of cell; an oblique quadrate patch below base of vein 2, often with a speck above vein 2; a postmedial spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline patch below the cell, edged with yellow towards inner margin; a postmedial spot between veins 2 and 3.

Ab. 1. Frons black-brown. (*a*) *cysseoides*, the hyaline spots large. (*b*) *georgina*, the spots small.

Hab. KANGRA (*Hocking*); NEPAL; SIKHIM, Moore Coll.; Calcutta (*Hearsay*); Karáchi, BOMBAY, Mhow (*Swinhoe*); NILGIRIS, type *cysseoides* (Hampson); CEYLON, type *georgina* (Templeton, Yerbury). *Exp.* 26–34 millim. Type *collaris* in Mus. Copenhagen, examined by Prof. Aurivillius.

*178. Syntomis insueta.

Syntomis insueta, Swinh. Cat. Het. Mus. Oxon. p. 41, pl. ii. f. 16 (1892).

♀. Black shot with copper; antennæ white at tips; frons and neck orange; abdomen with orange bands on 1st and 5th segments. Fore wing with small hyaline spots below the cell, in end of cell, and between veins 3 and 5. Hind wing with small hyaline patch below the cell, yellow towards inner margin.

Hab. CALCUTTA, Barrackpore; 1 ♀ type † in Mus. Oxon. *Exp.* 32 millim.

179. Syntomis albapex.

Syntomis albapex, Hmpsn. Ill. Het. ix. p. 62, pl. 157. f. 1 (1893); id. Moths Ind. i. p. 214.

♂. Dark brown; antennæ white at tips; vertex of head and a ring round neck orange; thorax with lateral orange patches;

abdomen with orange bands on basal and 5th segments. Fore wing with bar-shaped hyaline yellow spot below end of cell and spot between veins 3 and 4; cilia white below apex; sometimes also with hyaline speck below base of cell; a spot in end of cell and speck above vein 6. Hind wing with bar-shaped spot below cell and speck between veins 2 and 3.

Hab. Ceylon, Pundaloya and Nawalapitiya (*E. E. Green*, *J. Pole*); 2 ♂, type. *Exp.* 28-36 millim.

180. Syntomis sperbius.

Zygæna sperbius, Fabr. Mant. Ins. ii. p. 103 (1787). Kirby, Cat. Het. p. 91.

Syntomis atkinsoni, Moore, P. Z. S. 1871, p. 245, pl. 18. f. 2; Hmpsn. Moths Ind. i. p. 212; Anderson's Researches in W. Yunnan, p. 927, pl. 81. f. 5; Kirby, Cat. Het. p. 91.

♂. Black; frons yellowish white; antennæ white at tips; thorax with lateral yellow spots; metathorax with yellow patch; abdomen with golden yellow patch on basal segment and band on 5th. Fore wing with quadrate hyaline spot below base of cell; a truncate wedge-shaped patch in end of cell; an oblique patch below vein 2; an elongate postmedial streak above vein 6, with small spot above vein 7 usually present; two spots between veins 3 and 5; cilia white near apex. Hind wing with hyaline patch below the cell, becoming golden yellow towards inner margin and extending as a small spot above vein 2.

♀ with the anal tuft ochreous.

Hab. Sikhim, Moore Coll.; Cachar; Burma, Moulmein (*Clerk*), type *atkinsoni*, Upper and Lower Burma (*E. Y. Watson*), Tenasserim (*Wood-Mason*, *L. de Nicéville*); Tonkin (*Buckland*). *Exp.* 26-30 millim. Type in Mus. Copenhagen, examined by Prof. Aurivillius.

181. Syntomis hydatina. (Plate IV. fig. 14.)

Syntomis hydatina, Butl. Journ. Linn. Soc., Zool. xii. p. 346 (1876); Kirby, Cat. Het. p. 91.

Black; frons pale yellow; antennæ white at tips; metathorax and sides of thorax with yellow patches; abdomen with golden-yellow patch on basal segment and band on 5th segment. Fore wing with quadrate hyaline spot below base of cell and patch in end of it; an oblique wedge-shaped patch below vein 2; a spot above vein 6 and two spots between veins 3 and 5. Hind wing with large hyaline patch below the cell and vein 2, extending just into the cell and above vein 2.

Hab. Sikhim, 1 ♀; Calcutta, Moore Coll., type; Central India. *Exp.* 24 millim.

182. Syntomis bicincta.

Syntomis bicincta, Koll. Hugel's Kaschmir, iv. p. 460. pl. 19. f. 8 (1844); Hmpsn. Moths Ind. i. p. 213; Kirby, Cat. Het. p. 90.

Black with slight purplish gloss; frons pale yellow; antennæ white at tips; thorax with lateral yellow spots; 1st joint of hind tarsi white; abdomen with yellow bands on basal and 5th segments. Fore wing with quadrate hyaline yellow spot below base of cell; an oblique quadrate patch below vein 2; a quadrate spot in end of cell; a postmedial spot above vein 6 and two spots between veins 3 and 5. Hind wing with large yellowish semihyaline patch below the cell, slightly yellower towards inner margin; a round postmedial spot between veins 2 and 5.

Hab. China, Foochow (*De la Touche*); N.W. Himalayas, Kangra (*Hocking*, *Harford*, *Boys*, *Strachey*), Deyra Doon; Sikhim; Calcutta, Moore Coll.; Khásis. *Exp.* 30–44 millim.

183. Syntomis minor. (Plate IV. fig. 15.)

Syntomis minor, Warr. P. Z. S. 1888, p. 294; Hmpsn. Moths Ind. i. p. 213; Kirby, Cat. Het. p. 91.

Black shot with purple; frons yellow; thorax with lateral yellow patches; abdomen with yellow bands on 1st and 5th segments. Fore wing with small hyaline spot below base of cell, another in end of cell; an oblique spot below vein 2; a small spot above vein 6 and two spots between veins 3 and 5. Hind wing with small hyaline patch below the cell and spot between veins 2 and 3.

Hab. Punjab, Kala Pani, 4 specimens (*Yerbury*), types. *Exp.* 20 millim.

184. Syntomis megista, n. sp. (Plate IV. fig. 13.)

Black-brown; frons pure white; pectus with slight orange patches; antennæ white at tips; abdomen with orange bands on 1st and 5th segments. Fore wing with quadrate hyaline spots below base and in end of cell; a somewhat wedge-shaped spot below base of vein 2 and quadrate spots above veins 3 and 6, sometimes with traces of spot above vein 4. Hind wing with tridentate hyaline spot below base of cell and elliptical spot between veins 2 and 3.

Hab. Borneo, Kina Balu (*Waterstradt*), 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 50–54 millim.

185. Syntomis cingulata. (Plate IV. fig. 17.)

Zygæna cingulata, Weber, Obs. Ent. p. 100 (1801); Kirby, Cat. Het. p. 91.
Syntomis annetta, Butl. Journ. Linn. Soc., Zool. xii. p. 346 (1876).

Black; antennæ white at tips; thorax with lateral yellow spots; abdomen with yellow patch on basal segment and band on 5th segment. Fore wing with small quadrate hyaline white spot below base of cell; a wedge-shaped spot in end of cell; an elongate wedge-shaped patch below vein 2 extending almost to termen; an elongate postmedial spot above vein 6 and two between veins 3 and 5. Hind wing with hyaline patch below the cell, becoming yellow towards inner margin.

Hab. China, Foochow (*G. T. Lay*), type *annetta*, Hong Kong (*J. C. Bowring*). *Exp.* 28 millim.

186. Syntomis sintenisi.

Syntomis sintenisi, Standfuss, Rom. Mém. vi. p. 654, pl. 15. f. 3 (1892).

♂. Black with a faint purple shot; thorax with lateral yellow spots; abdomen with yellow patch on basal segment and band on 5th segment. Fore wing with small oblique semihyaline yellowish quadrate spot below base of cell; a quadrate spot in end of cell; a wedge-shaped oblique spot below base of vein 2; a postmedial spot above vein 6 and two spots between veins 3 and 5. Hind wing with a yellowish band below base of vein 2 conjoined to a spot above vein 2.

♀. Hind wing with large yellowish patch below the cell conjoined to the spot above base of vein 2.

Hab. Kurdistan, 1 ♂; Turkestan, 1 ♀, Zeller Coll.; Chefoo, Coll. Staudinger. *Exp.* 32 millim.

187. Syntomis caspia.

Syntomis caspia, Staud. Stett. Ent. Zeit. xxxviii. p. 176 (1877); Rom. Mém. i. p. 82, pl. 4. f. 7; Kirby, Cat. Het. p. 91.

Black, with slight metallic green shot; thorax with lateral yellow spots; abdomen with orange basal patch and band on 5th segment. Fore wing with a small round hyaline spot below base of cell; a quadrate spot in end of cell; an oblique wedge-shaped mark below vein 2; a small postmedial spot above vein 6 and two small spots between veins 3 and 5. Hind wing with rounded hyaline white spot below cell and vein 2, bordered on its upper, inner, and lower sides with yellow scales.

Hab. Armenia; Astrachan, 1 ♀, Frey Coll. *Exp.* 32 millim.

188. Syntomis maracandina.

Syntomis maracandina, Ersch. Fedch. Reise, Lep. p. 30, pl. 2. f. 25 (1874); Kirby, Cat. Het. p. 91.
Syntomis cocandica, Ersch. Fedch. Reise, Lep. p. 31, pl. 2. f. 26 (1874).

Black shot with brilliant purple; abdomen with orange dorsal patch on 1st segment and band on 5th. Fore wing with pear-shaped yellowish-white spot below base of cell; a quadrate spot in end of cell, an oblique quadrate patch below vein 2; a spot above vein 6 often with points above and below it, and two spots between veins 3 and 5. Hind wing with large rounded patch below the cell.

Ab. 1. *cocandica*: with all the spots smaller.

Hab. Jura, 1 ♂ 1 ♀; Turkestan; Khokand. *Exp.* 40 millim.

*189. Syntomis bifasciata.

Syntomis bifasciata, Hopff. Mon. Kon. Acad. Wiss. 1857, p. 422; Peters' Reise nach Mossambique, Ins. p. 426, pl. xxvii. f. 14; Kirby, Cat. Het. p. 94.

♀. Black shot with bright purplish blue; abdomen with narrow orange bands on 1st and 5th segments. Fore wing with small hyaline spots in end of cell, below base of vein 2, above veins 3 and 6. Hind wing with small hyaline spot below the cell.

Hab. Mozambique, Querimba I.; E. Africa (*Monteiro*). *Exp.* 30 millim. Type † in Mus. Stockholm.

190. Syntomis bactriana.

Syntomis bactriana, Ersch. Fedch. Reise, Lep. p. 29, pl. 2. f. 24 (1874); Kirby, Cat. Het. p. 90.

Black shot with metallic blue and green; antennæ white at tips; thorax with lateral yellow spots; abdomen with an orange patch on 1st segment and a band on 5th. Fore wing with subquadrate yellowish-white spot below base of cell, another in end of cell; a large oblique quadrate spot below base of vein 2; a postmedial spot above vein 6, with specks above and below it. Hind wing with a large yellowish-white patch below the cell and basal part of vein 2, extending into the basal part of the interspace above vein 2, narrowing and becoming orange at middle of inner margin.

Hab. Turkestan, 1 ♂ 1 ♀, Frey Coll. *Exp.*, ♂ 40, ♀ 44 millim.

191. Syntomis antiochena.

Syntomis antiochena, Led. Wien. Ent. Mon. v. p. 151, pl. i. ff. 13, 14 (1861); Staud. Cat. p. 50; Kirby, Cat. Het. p. 91.

Black shot with metallic blue or green; antennæ white at tips; thorax with lateral yellow spots; abdomen with yellow patch on basal segment and band on 5th segment. Fore wing with small quadrate spot below base of cell; a rounded spot in end of cell; an oblique diamond-shaped spot below vein 2; a postmedial spot above vein 6, and two small rounded spots between veins 3 and 5. Hind wing with white patch below base of vein 2, usually extending as a small spot above vein 2, its edges irregular and narrowing to inner margin.

Ab. 1. *taurica*, Staud. MS. Antennæ black at tips; wings with the spots reduced, especially the spot below base of cell of hind wing.—Taurus.

Hab. Syria, Zeller Coll. *Exp.* 34 millim.

192. Syntomis mestralii.

Syntomis mestralii, Bugn. Ann. Soc. Ent. Fr. vi. p. 439, pl. 16. f. 1 (1837); Led. Wien. Ent. Mon. v. p. 151, pl. 1. ff. 11, 12; Staud. Cat. p. 50; Kirby, Cat. Het. p. 91.

Syntomis kindermanni, Led. Wien. Ent. Mon. ii. p. 142 (1858).

♂. Black shot with metallic blue and green; antennæ white at tips; abdomen with yellow basal patch and band on 5th segment. Fore wing with a quadrate spot below base of cell and another in and of cell; an oblique quadrate patch below basal part of vein 2;

a postmedial spot above vein 6 and two spots between veins 3 and 4. Hind wing with large white patch below the cell and vein 2, extending into the interspace between veins 2 and 3 and sometimes as a small spot above vein 3, its outer edge indented below vein 2, narrowing to inner margin.

Ab. 1. *palestina*, Stand. MS. Antennæ black at tips; wings with the spots yellower. ♀ with the wings aborted and very much reduced.

Hab. Syria, 3 ♂, Zeller Coll. *Exp.* 44–54 millim.

193. Syntomis phegea.

Sphinx phegea, Linn. Syst. Nat. x. p. 494 (1758); Drury, Ill. Exot. Ent. i. pl. 25. f. 2; Esp. Eur. Schmett. ii. p. 144, pl. 17. ff. 1, 2; Hübn. Eur. Schmett. ii. ff. 99, 100; Staud. Cat. p. 50; Kirby, Cat. Het. p. 90.
Sphinx lugata, All. Mél. Phil.-math. Turin, 1762–65, p. 193 (1766).
Zygæna quercus, Fabr. Ent. Syst. 3. i. p. 388 (1793).
Sphinx iphimedia, Esp. Eur. Schmett. ii (2) p. 49, pl. 47. f. 4 (1801).
Sphinx clelia, Esp. Eur. Schmett. ii. (2) p. 46 (1801), id. ii. (1) p. 220, pl. 34. f. 1; Hübn. Eur. Schmett. ii. f. 30; Borkh. Eur. Schmett. ii. pp. 7, 117 (1789).
Syntomis nigricornis, Alph. Rev. Mens. Ent. i. p. 18 (1883).

Black shot with metallic green; antennæ white at tips; pectus with yellow patches; abdomen with an orange patch on basal segment and band on 5th segment. Fore wing with small white spot below base of cell; a spot in end of cell which may be reduced to a speck; an oblique rather elongate spot below end of cell and vein 2; and spots between veins 3 and 5 and above 6. Hind wing with two spots below the cell, sometimes reduced to one speck, often large, conjoined, and with a spot below vein 1; a spot above vein 2, and usually a smaller spot above 3, the spots being often large and almost confluent with the spots below cell.

Fore wing with veins 4, 5 sometimes shortly stalked.

Ab. 1. *nigricornis*: antennæ with the tips black.

Ab. 2. *clelia*: fore wing with the spots reduced to a small spot below base of cell and oblique streak below vein 2, or absent; hind wing with one spot above vein 2.

Ab. 3. *iphimedia*: wings without spots.

Larva thickly clothed with fasciculate tufts of long brown hair on the tubercles.

Hab. France; Belgium; Germany; S.E. Europe, Zeller and Frey Colls.; Caucasus. *Exp.* 38–48 millim.

*194. Syntomis ganssuensis.

Syntomis ganssuensis, Grumm-Grschm. Hor. Soc. Ent. Ross. xxv. p. 461 (1891); Kirby, Cat. Het. p. 901.

Blue-black; antennæ black; pectus with orange patches; abdomen with one orange band. Fore wing with six hyaline spots tinged with dingy white. Hind wing with two spots.

Hab. Central Asia, Chuan-Che. *Exp.* 16 millim. This species is unknown to me.

195. Syntomis lateralis.

Syntomis lateralis, Boisd. Spéc. Gén. Lép. i. pl. 12. f. 5 (1836); Kirby, Cat. Het. p. 98.
Syntomis marginalis, Wlk. i. p. 130 (1854); Butl. Ill. Het. i. p. 16, pl. 6. f. 13; Kirby, Cat. Het. p. 94.

♀. Black shot with metallic green and blue; frons and spots on tegulæ and patagia orange; coxæ, femora, and tibiæ marked with orange; abdomen with six lateral orange bands and a ventral series of spots. Fore wing with small hyaline speck below base of cell; a quadrate spot in end of it; a round spot below vein 2; an elongate spot above vein 6, and two spots between veins 3 and 5. Hind wing with hyaline speck below the cell and spot in end of it; two small submarginal spots between veins 3 and 5.

Hab. Ashanti, 1 ♀, type *marginalis*; Senegal. *Exp.* 44 millim.

196. Syntomis adjuncta. (Plate IV. fig. 18.)

Syntomis adjuncta, Wlk. xxxi. 74 (1864); Kirby, Cat. Het. p. 102.

♀. Black; frons yellow; patagia and sides of thorax with golden yellow spots; abdomen with two paired series of lateral yellow spots. Fore wing with hyaline patch occupying the cell; a triangular patch in submedian interspace extending nearly from base to termen; an elongate spot above vein 6 and more or less developed spot above vein 7; two elongate spots between veins 3 and 5. Hind wing with hyaline spot below end of cell and vein 2, confluent with a spot above vein 2.

Hab. Amboina; Ceram; Ké I. (*Wallace*). *Exp.* 32 millim. Type† in Mus. Oxon.

197. Syntomis simplex.

Syntomis simplex, Wlk. i. p. 129 (1854); Butl. Ill. Het. i. p. 15, pl. 6. f. 11; Kirby, Cat. Het. p. 93.
Syntomis nostalis, Wlk. i. p. 129 (1854).
Syntomis corvus, Wallengr. Wien. Ent. Mon. iv. p. 39 (1860); Kirby, Cat. Het. p. 94.
Syntomis monedula, Wallengr. Wien. Ent. Mon. iv. p. 39 (1860).

Metallic blue; antennæ white at tips; thorax with lateral orange patches; abdomen with an orange patch on basal segment and a lateral series of orange spots; small white spots below base and in end of cell; a speck or spot below end of cell; a speck or spot above vein 6, often absent; another spot between veins 3 and 4; cilia white at apex. Hind wing with a spot below base of cell.

Ab. 1. The spots vary greatly in size, being sometimes well-developed (*simplex*), sometimes reduced to specks (*nostalis*).

Ab. 2. *corvus*: fore wing with the spot in cell only; hind wing without spot.

Hab. Natal (*J. V. Gooch*, *Gueinzius*); types *simplex* and *nostalis*. *Exp.* 30–34 millim.

198. Syntomis unifascia. (Plate IV. fig. 20.)

Syntomis unifascia, Hmpsn. Moths Ind. i. p. 212 (1892).

♀. Black shot with metallic blue; frons white; abdomen with a yellow band on ventral surface of 5th segment. Fore wing with small quadrate hyaline spots below base and in end of cell; a small round spot below vein 2; a spot above vein 6, and two elongate spots between veins 3 and 5. Hind wing with elliptical hyaline spot below the cell.

Hab. Sikhim, 1 ♀ type. *Exp.* 36 millim.

199. Syntomis discata. (Plate IV. fig. 21.)

Syntomis discata, Druce, A. M. N. H. (7) i. p. 147 (1898).

♀. Head and thorax black; antennæ white at tips; proboscis, tegulæ, patagia, and metathorax orange; abdomen orange, the terminal three segments black. Fore wing hyaline, the veins and margins rather broadly black; a large black discoidal spot; the apical area to vein 5 and a large patch from above tornus to vein 3 black. Hind wing with the basal half orange, the terminal half black; small hyaline spots below the cell and above base of vein 2.

Hab. E. Africa, Dar-es-Salaam. *Exp.* 28 millim. Type† in Coll. Druce.

200. Syntomis stellaris. (Plate IV. fig. 22.)

Syntomis stellaris, Snell. Deutsche Ent. Zeit., Lep. viii. p. 130 (1895).

♂. Black with a slight purple gloss; frons, tips of antennæ, tegulæ, and 1st joint of tarsi white; abdomen glossed with green; white bands on 1st and 5th segments, and lateral spots on the intermediate segments. Fore wing with small hyaline white spots below base and in end of cell, below origin of vein 2, between veins 3, 4, and above 6; cilia white below apex. Hind wing with hyaline white spots below cell and between veins 2 and 5.

Hab. Perak (*Doherty*), 1 ♂; Siam; Borneo, Coll. Staudinger; Sumatra. *Exp.* 20 millim.

*201. Syntomis rendalli. (Plate IV. fig. 23.)

Syntomis rendalli, Dist. A. M. N. H. (6) xx. p. 16 (1897).

♂. Black; base of patagia and pectus with white patches; abdomen with dorsal white bands on 1st and 5th segments, and lateral spots on the intermediate segments. Fore wing with small white spot below base of cell; small spots in and below end of cell, between veins 3 and 5, and above vein 6. Hind wing with white patch below the cell and small spot between veins 2 and 3.

Hab. Transvaal. *Exp.* 20–22 millim. Type† in Coll. Distant.

*202. Syntomis longipennis.

Syntomis longipennis, Wlk. Journ. Linn. Soc., Zool. vi. p. 91 (1862); Swinh. Cat. Het. Mus. Oxon. pl. ii. f. 13; Kirby, Cat. Het. p. 91.

♀. Black with a slight purple tinge (head wanting); shoulders, sides of thorax, and coxæ with white spots; abdomen with a greenish tinge; a dorsal white patch on 1st segment and ventral bands except on terminal segments. Fore wing with quadrate hyaline spot below middle of cell; a small round spot in end of cell; a spot above vein 6, and one between veins 3 and 5. Hind wing with spots below base of cell and between veins 2 and 3.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀ type † in Mus. Oxon. *Exp.* 44 millim.

* 203. Syntomis cærulescens. (Plate IV. fig. 19.)

Syntomis cærulescens, Druce, A. M. N. H. (7) i. p. 146 (1898).

♀. Blue-black; tips of antennæ, frons, and spots on base of patagia and pectus white; abdomen with dorsal white patch on 1st segment and lateral points on next four segments. Fore wing with small hyaline spots below base of cell and vein 2, in end of cell, and above veins 3, 4, and 6; cilia white at apex and between veins 2 and 3. Hind wing with hyaline spots below the cell and between veins 2 and 3; veins 3 and 5 stalked.

Hab. E. Africa (*Monteiro*). *Exp.* 30 millim. Type † in Coll. Druce.

*204. Syntomis veronica.

Naclia veronica, Oberth. Ét. Ent. xviii. p. 8, pl. 1. f. 15 (1894).
Naclia magdalene, Oberth. Ét. Ent. xviii. p. 9, pl. 1. f. 16 (1894).

Head, thorax, and abdomen black; patagia with crimson patches; tarsi with the first two joints white; abdomen with the ventral surface white except terminal segment; wings hyaline, the veins, and margins rather broadly, black. Fore wing with the basal area black; a discoidal black patch; the terminal band expanding widely on apical area and as a small triangular patch between veins 2 and 3. Hind wing with the terminal band expanding somewhat towards apex.

Ab. 1 (or ? ♀), *magdalene*. Fore wing with large discoidal patch, the expansions of terminal band of both wings larger, the patch between veins 2 and 3 of fore wing nearly extending to cell; tarsi black.

Hab. Madagascar. *Exp.* 24–26 millim. This species is unknown to me.

205. Syntomis cantori.

Syntomis cantori, Moore, Lep. E. I. C. p. 326 (1859); id. P. Z. S. 1859, p. 199, pl. 60. f. 12; Kirby, Cat. Het. p. 98.

♀. Black suffused with dark green; tarsi with the 1st joint white. Fore wing with the basal half black suffused with green; the outer half hyaline, the veins crossing it yellow and leaving a black discocellular band, an apical patch, and a narrow terminal line expanding into a triangular spot at vein 2. Hind wing with small hyaline spot at bases of veins 2 and 3.

Hab. Penang, 1 ♀ type (*Cantor*), without antennæ. *Exp.* 38 millim.

206. Syntomis interniplaga. (Plate IV. fig. 16.)

Syntomis interniplaga, Mab. Ann. Soc. Ent. Fr. (6) x. p. 35 (1890); Kirby, Cat. Het. p. 93.

♀. Black shot with metallic green; tips of antennæ and 1st joint of tarsi white. Fore wing with small round hyaline spot in end of cell; an oblique spot below base of vein 2, and spots above veins 3, 4, and 6, an obsolescent red spot between bases of veins 2 and 3. Hind wing with hyaline streak on inner area and spot between veins 2 and 3.

Ab. 1. Shot with metallic blue; fore wing with quadrate hyaline spots in end and below base of cell; obsolescent red patches on discocellulars, below middle of cell, between veins 2 and 3, and on terminal area; hind wing with spot below base of cell and no streak on inner margin. Mus. Stockholm.

Hab. Gaboon, 2 ♀; Congo. *Exp.* 30–36 millim. Type† in Coll. Mabille.

207. Syntomis marina. (Plate IV. fig. 21.)

Syntomis marina, Butl. Journ. Linn. Soc., Zool. xii. p. 348 (1876); Kirby, Cat. Het. p. 93.

Syntomis negretina, Plötz, Stett. Ent. Zeit. xli. p. 78 (1880); Kirby, Cat. Het. p. 93.

Syntomis ogovensis, Holland, Psyche, vi. p. 374 (1893).

♀. Head, thorax, and abdomen metallic blue-green; tips of antennæ and 1st joint of tarsi white. Fore wing shot with violet and with metallic blue-green at base; a small rounded hyaline spot in end of cell, and rounded or oblique elongate spot below vein 2; a spot above vein 6, and two spots between veins 3 and 5. Hind wing shot with purple; a hyaline spot on base of inner area and a postmedial spot between veins 2 and 3; veins 3, 5 stalked.

♂. Hind wing with traces only of spot at base of inner area and no postmedial spot.

Ab. 1. Fore wing with small hyaline spot below base of cell, the other spots smaller, the spot above vein 4 minute, and the spot above 6 absent; hind wing with the spot on inner area extending to the cell, the spot above vein 2 small.—Sierra Leone, Coll. Staudinger.

Hab. Cameroons; Congo, 3 ♀. *Exp.* 26 millim. ♂ in Coll. Druce. Type† *ogovensis* in Coll. Holland.

Genus **ERESSA**.

	Type.
Eressa, Wlk. i. 149 (1854)	*confinis.*
Ctenandra, Feld. Sitz. Akad. Wien, lxiii. p. 38 (1861)	*naclioides.*
Trianeura, Butl. Journ. Linn. Soc., Zool. xii. p. 353 (1876)	*subaurata.*
Chloromeles, Meyr. P. Linn. Soc. N.S.W. (2) i. p. 785 (1886)	*geographica.*

Proboscis small or well developed; palpi short and porrect; frons hairy; mid and hind tibiæ with small terminal pairs of spurs. Fore wing usually broad; vein 3 from well before angle of cell; 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from well before angle of cell; 3, 5 well separated at origin; 4 absent; 7 absent.

SECT. I. Antennæ of male bipectinate; frons without furrow.

A. Hind wing of male with the inner area lobed and folded over on upper surface of wing.

208. **Eressa furva**, n. sp.

♂. Fulvous brown; head orange; abdomen with dorsal orange spots on medial segments, a lateral series and ventral bands. Fore wing with brownish hyaline spots below middle of cell, in end and below end of cell; a postmedial spot above vein 6 and two spots between veins 3 and 5.

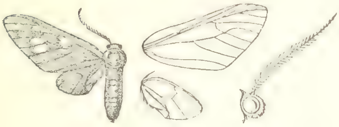

Fig. 37.—*Eressa furva*, ♂. $\frac{1}{1}$.

Hab. N. AUSTRALIA, Damma Island (*J. J. Walker*), 1 ♂ type. *Exp.* 30 millim.

B. Hind wing of male with the inner area normal.
  a. Abdomen with dorsal and ventral series of livid spots .... *naclioides.*
  b. Abdomen with dorsal and lateral series of orange-yellow spots.
    a^1. Hind wing with large hyaline patch below base of cell.
      a^2. Fore wing broad, with the elongate hyaline patch below vein 2 commencing below middle of cell .... *confinis.*
      b^2. Fore wing narrow, with the hyaline patch below the cell commencing near base of wing .... *subaurata.*
    b^1. Hind wing with hyaline spots between veins 2 and 5 and in end of cell .... *affinis.*
  c. Abdomen with six orange bands.
    a^1. Hind wing fuscous with the markings hyaline; a spot between veins 2 and 3 .... *lutulenta.*
    b^1. Hind wing black with the markings orange; no spot between veins 2 and 3 .... *geographica.*
    c^1. Hind wing hyaline with black terminal band.
      a^2. Fore wing with distinct hyaline patches on terminal area.
        a^3. Frons black, markings of thorax and abdomen orange .... *eressoides.*

b^3. Frons and markings of head, thorax, and abdomen pale yellow .... *vespa.*
b^2. Fore wing with the hyaline spots of terminal area almost obsolete .... *semifusca.*
d. Abdomen with five yellow bands .... *quinquecincta.*
e. Abdomen with short dorsal yellow bands on each segment; ventral surface yellow .... *microchilus.*
f. Abdomen with two orange-red bands and lateral spots on intermediate segments .... *erythrosoma.*
g. Abdomen with one yellow basal band .... *aperiens.*
h. Abdomen with lateral series of white spots .... *annosa.*

*209. Eressa naclioides.

Ctenandra naclioides, Feld. Sitz. Akad. Wien, lxiii. p. 39 (1861); Kirby, Cat. Het. p. 106.

♂. Brown; head and mesothorax livid greyish; abdomen fuscous, with dorsal and ventral series of livid spots. Fore wing with four hyaline spots; hind wing without spots.

♀. Fore wing with five hyaline spots; hind wing with three spots.

Hab. Amboina. *Exp.* ? 36 millim. This species is unknown to me.

210. Eressa confinis.

Glaucopis confinis, Wlk. i. 149 (1854); Hmpsn. Moths Ind. i. p. 223; Kirby, Cat. Het. p. 104.

Eressa musa, Swinh. P. Z. S. 1885, p. 290, pl. 20. f. 1; Hmpsn. Moths Ind. i. p. 222; Kirby, Cat. Het. p. 104.

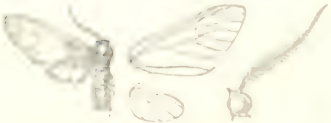

Fig. 38.—*Eressa confinis*, ♂. ½.

Black-brown; antennæ more or less white at tips; meso- and metathorax with yellow patches; abdomen with dorsal, lateral, and ventral series of yellow spots. Fore wing with hyaline patch in end of cell; a hyaline patch from below middle of cell to below middle of vein 2, with a spot above it above vein 2; a postmedial series of four spots between veins 3 and 7, the spot above vein 5 small. Hind wing with hyaline patch below the cell, a spot in end of cell, and two spots between veins 2 and 5.

Ab. 1. *musa* (♀): fore wing with the hyaline patches above and below vein 2 somewhat shortened, and a small spot above 7.

Ab. 2. (♂): hind wing entirely black.—Bhutan, Khásis.

Hab. N.W. Himalayas, Almorah (*Boys*), Kangra (*Hocking*), Simla (*H. C. Harford*); Sikhim, Moore Coll.; Bhutan (*Dudgeon*); Calcutta, Moore Coll.; Bombay (*Swinhoe*), type *musa*; Nilgiris; Ceylon; Burma. *Exp.*, ♂ 26, ♀ 32 millim.

211. Eressa subaurata.

Glaucopis subaurata, Wlk. i. 149 (1854); Moore, Lep. Ceyl. ii. p. 36, pl. 95. f. 4; Hmpsn. Moths Ind. i. p. 223; Kirby, Cat. Het. p. 104.

♂. Black-brown; meso- and metathorax with orange patches; abdomen with dorsal, lateral, and ventral orange spots. Fore wing rather narrow; an elongate hyaline patch below the cell from near base to beyond middle of vein 2; a patch in end of cell and spot above origin of vein 2; four postmedial spots between veins 3 and 7, the spot above vein 5 small. Hind wing with hyaline patches in and below cell, and spots above veins 2 and 3.

Hab. CEYLON (*Templeton*), type, (*E. E. Green*), Moore Coll. *Exp.* 20 millim.

212. Eressa affinis.

Eressa affinis, Moore, P. Z. S. 1877, p. 596, pl. 59. f. 3; Hmpsn. Moths Ind. i. p. 223; Kirby, Cat. Het. p. 104.
Eressa politula, Swinh. Cat. Het. Mus. Oxon. p. 52 (1892).

♂. Black-brown; meso- and metathorax with orange patches; abdomen with dorsal, lateral, and ventral series of orange spots. Fore wing with hyaline patch from below middle of cell to below middle of vein 2; spots above base of vein 2 and in end of cell; a postmedial series of four spots between veins 3 and 7, the spot above vein 5 small. Hind wing with hyaline spot between veins 3 and 5.

♀. Hind wing with three hyaline spots in end of cell and between veins 2 and 5.

Hab. ANDAMANS (*A. Carpenter*), Moore Coll., type. *Exp.*, ♂ 22, ♀ 28 millim. Type † *politula* in Mus. Oxon.

213. Eressa lutulenta.

Cœnochromia lutulenta, Snell. Tijd. v. Ent. xxii. p. 71, pl. 6. f. 4 (1879); Kirby, Cat. Het. p. 102.
Chloromeles strepsimeris, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 786 (1886); Kirby, Cat. Het. p. 105.

Blackish brown; head and tegulæ orange-yellow; antennæ and a band between their bases black, the tips of antennæ white; patagia orange fringed with brown; metathorax with an orange patch; abdomen with six orange bands. Fore wing with elongate semihyaline yellowish patch below middle of cell and basal half of vein 2; a rounded spot above vein 2; a quadrate patch in cell; a postmedial series of four spots between veins 3 and 7, the spot above vein 5 small, a speck above vein 7 on one side of type. Hind wing with hyaline patches in and below cell and two spots between veins 2 and 5.

Hab. JAVA; CELEBES; N. AUSTRALIA, Port Darwin (*J. J. Walker*), 1 ♀. *Exp.*, ♂ 22–24, ♀ 38 millim. Type † in Coll. Snellen; *strepsimeris* in Mus. Sydney Univ.

214. **Eressa geographica.** (Plate IV. fig. 25.)

Choromeles geographica, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 785 (1886); Kirby, Cat. Het. p. 105.
Eressa detola, Swinh. Cat. Het. Mus. Oxon. p. 53 (1892).

♂. Black-brown; head orange-yellow; orange spots on base of patagia, meso- and metathorax; abdomen with six bands and the anal tuft orange. Fore wing with orange semihyaline elongate patch below cell and vein 2 dilated basally; a spot in end of cell and another above base of vein 2; an oblique series of four spots between veins 3 and 7, the spot above vein 5 small. Hind wing with bright orange spot in cell; a large spot below the cell extending nearly to tornus; a spot beyond the cell between veins 3 and 5.

Hab. QUEENSLAND (*Waller*), 1 ♂. *Exp.* 28 millim. Type in Coll. Meyrick; type † *detola* in Mus. Oxon.

* 215. **Eressa eressoides.** (Plate IV. fig. 26.)

Syntomis eressoides, Hmpsn. Moths Ind. i. p. 220 (1892).

♀. Head, thorax, and abdomen fuscous; tegulæ, patagia, and patches on sides of thorax orange; abdomen with orange bands on each segment, the anal tuft grey; wings hyaline, the veins and margins narrowly black. Fore wing with discoidal black spot; the terminal band expanding at vein 2 and from vein 5 to apex. Hind wing with black apical patch.

Hab. BURMA, Momeit. *Exp.* 26 millim. 1 ♀ Coll. Elwes, type †.

216. **Eressa vespa**, n. sp. (Plate IV. fig. 27.)

Black; frons, tegulæ, patagia, and stripes on thorax yellow; thorax at sides and fore coxæ yellow; abdomen with six yellow bands; wings yellowish hyaline. Fore wing with the veins black; the margins rather broadly black; the base of cell, a discocellular band, and projections from the terminal band along vein 5 and between veins 2 and 3 black. Hind wing with terminal band diminishing from costa to vein 2.

Hab. BURMA, Karen Hills, 1 ♂ 1 ♀, Moore Coll., types. *Exp.*, ♂ 22, ♀ 26 millim.

217. **Eressa semifusca**, n. sp. (Plate IV. fig. 28.)

♂. Head, thorax, and abdomen black; antennæ white at tips; frons, tegulæ, patagia, and legs orange-yellow; abdomen with six orange bands and the anal tuft orange. Fore wing hyaline, the veins, costa, and inner margin black; the apical half black-brown with slight whitish bloom; traces of hyaline spots between veins 3 and 5 and above vein 6. Hind wing hyaline with terminal black line slightly expanding to apex.

Hab. PERAK (*Doherty*), 1 ♂ type; LABUAN, in Coll. Staudinger. *Exp.* 22 millim.

218. **Eressa quinquecincta**, n. sp. (Plate V. fig. 3.)

♀. Head, thorax, and abdomen black-brown; antennæ white at tips; frons, tegulæ, patagia, and sides of thorax and legs pale yellow; abdomen with five yellow bands and the extremity yellow; wings hyaline, the margins black. Fore wing with the median nervure black; a black discoidal band connected by a streak along vein 3, with a dentate expansion of the terminal line which expands widely on apical area and sends a spur inwards on vein 5 almost to the cell.

Hab. PERAK (*Doherty*), 1 ♀ type. *Exp.* 28 millim.

219. **Eressa microchilus.** (Plate V. fig. 5.)

Syntomoides microchilus, Hmpsn. Moths Ind. i. p. 212 (1892).
Syntomis plumalis, Hmpsn. Moths Ind. iv. p. 466 (1896).

♂. Head, thorax, and abdomen black-brown; frons, tegulæ, and a patch on metathorax yellow; abdomen with short dorsal yellow bands on each segment; the ventral surface yellow. Fore wing hyaline, with the veins and margins black; a black discocellular band; a large apical black patch and a terminal patch between veins 2 and 3. Hind wing hyaline, with the veins and margins narrowly black.

Hab. BURMA, Toungoo (*L. de Nicéville*), type *plumalis*; Tenasserim Valley, type † in Coll. Druce. *Exp.* 20 millim.

*220. **Eressa erythrosoma.** (Plate V. fig. 23.)

Syntomis erythrosoma, Hmpsn. Moths Ind. i. p. 223 (1892).

♂. Head and thorax black; frons, tegulæ, and base of patagia pale orange; abdomen greenish black, the basal and 5th segments banded with reddish orange, the medial segments with lateral reddish-orange patches; wings hyaline, the veins and margins narrowly black; fore wing with a black spot on discocellulars and black terminal patches between veins 2 and 3, 5 and 6, and at apex.

Hab. BURMA, Matelei. *Exp.* 22 millim. Type † in Mus. Genova (*Fea*).

221. **Eressa aperiens.**

Syntomis aperiens, Wlk. xxxi. 68 (1864); Hmpsn. Moths Ind. i. p. 221; Kirby, Cat. Het. p. 97.
Trianeura moorei, Butl. Journ. Linn. Soc., Zool. xii. p. 354 (1876); Kirby, Cat. Het. p. 104.
Syntomis lydia, Swinh. Trans. Ent. Soc. 1891, p. 134, pl. 8. f. 7.

Black-brown; abdomen with an orange-yellow basal band. Fore wing with elongate hyaline patch from below middle of cell below vein 2 to near termen; a spot above base of vein 2; a quadrate patch in end of cell; a series of four postmedial spots between veins 3 and 8, often with a small additional spot between veins 5 and 6. Hind wing with hyaline patch below the cell and two spots between veins 2 and 5, and often a small spot in lower end of cell.

Ab. 1. *lydia*: with the spots of fore wing all conjoined; the hind wing hyaline, leaving narrow black markings.

Hab. BOMBAY, type *moorei*, Moore Coll.; NILGIRIS (*M. J. Walhouse*, *Hampson*), type and type *lydia*. *Exp.*, ♂ 24, ♀ 28 millim.

222. Eressa annosa.

Syntomis annosa, Wlk. Journ. Linn. Soc. iii. p. 183 (1859); Swinh. Cat. Het. Mus. Oxon. pl. 2. f. 17; Hmpsn. Moths Ind. iv. p. 466; Kirby, Cat. Het. p. 105.

Syntomis marcescens, Feld. Reis. Nov. pl. 102. f. 12 (1874); Kirby, Cat. Het. p. 104.

Syntomis lasara, Pag. Jahrb. Nass. Verh. xxxviii. p. 15, pl. 2. f. 8 (1885); Kirby, Cat. Het. p. 98.

♀. Black suffused with dull purplish blue; frons, tips of antennæ, and spots on patagia white; abdomen metallic greenish except at base, with series of white lateral spots. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below cell and vein 2, and a series of spots in the interspaces between veins 2 and 8. Hind wing with hyaline patches in and below cell and vein 1, and rounded spots between veins 2 and 5.

♂. Brown, without the purplish-blue gloss; wings with the veins between the hyaline patches much more narrowly brown.

Hab. TENASSERIM, Dawnat Hills (*L. de Nicéville*), 1 ♂; SINGAPORE, type † in Mus. Oxon.; JAVA, type † *marcescens* ♂ in Coll. Rothschild. *Exp.*, ♂ 34, ♀ 50 millim.

SECT. II. Antennæ of male serrate, of female simple.

A. Abdomen crimson, with series of blue-black spots.
  a. Wings hyaline yellow; fore wing with small apical black patch .... *multigutta.*
  b. Wings hyaline white; fore wing with the hyaline patch extending to vein 4 .... *lepcha.*
B. Abdomen with each segment slightly fringed with yellow; fore wing with the apical patch extending to vein 4...... *nigra.*

223. Eressa multigutta.

Syntomis multigutta, Wlk. i. 134 (1854); Butl. Ill. Het. i. pl. 7. f. 3; Hmpsn. Moths Ind. i. p. 220; Kirby, Cat. Het. p. 102.

Syntomis blanchardi, Pouj. Bull. Soc. Ent. Fr. 1884, p. cxxxvi; Hmpsn. Moths Ind. i. p. 221; Kirby, Cat. Het. p. 92.

Head and thorax metallic blue-black; tegulæ, patagia, and metathorax fringed with scarlet; abdomen scarlet, with short dorsal blue-black bands and lateral series of spots, the extremity blue-black. Fore wing yellow hyaline; the veins and margins narrowly black; a discoidal band and apical patch. Hind wing yellow hyaline; the veins black; a discoidal spot; a terminal black band, sometimes narrow, sometimes broad, from apex to vein 2 and dentate inwards below veins 3 and 2; vein 5 sometimes from rather near 3.

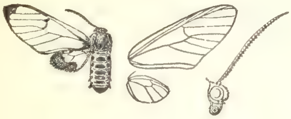

Fig. 39.
Eressa multigutta, ♂. 1/1.

Hab. China; Tibet; Nepal (*Hardwicke*), type: Sikhim (*Sadler*), Moore Coll.; Burma. *Exp.* 25–32 millim. Type *blanchardi* in Mus. Paris.

224. **Eressa lepcha.** (Plate V. fig. 7.)

Syntomis lepcha, Moore, Lep. Atk. p. 12 (1879); Hmpsn. Moths Ind. i. p. 217; Kirby, Cat. Het. p. 102.

♂. Head and thorax black; tegulæ, patagia, and metathorax fringed with crimson, mesothorax with paired dorso-lateral blue streaks; abdomen whitish, crimson towards apex below and with short dorsal bands and lateral series of blue-black spots; wings hyaline white. Fore wing with the veins and margins black; a broad black discoidal band; the termen excurved between veins 5 and 2; the terminal band extending from apex to vein 4 and sending a tooth inwards on vein 5. Hind wing with the veins and margins black, the terminal band rather narrow and ending on vein 2.

♀. Fore wing without the streak on vein 5.

Hab. Sikhim (*G. C. Dudgeon*), 1 ♂. *Exp.* 24 millim. Type † ♀ in Coll. Staudinger.

225. **Eressa nigra.** (Plate V. fig. 8.)

Syntomis nigra, Hmpsn. Moths Ind. i. p. 221 (1892).

♂. Black; tegulæ and patagia fringed with yellow; thorax striped with yellow; abdomen with the segments slightly fringed with yellow. Fore wing hyaline; the veins black; a black discoidal patch extending between veins 5 and 6 to the large apical patch which extends from costa to vein 4. Hind wing hyaline; the veins and costa black; an apical black patch broad at costa, tapering to a point near tornus.

Hab. Simla, 1 ♂ (*H. C. Harford*), type. *Exp.* 25 millim.

Sect. III. Antennæ of male laminate; frons with deep furrow; fore femora and tibiæ with thick tufts of scales.

*226. **Eressa ypleta.**

Syntomis ypleta, Swinh. Cat. Het. Mus. Oxon. p. 47 (1892).

♂. Black; frons, tegulæ, patagia, and fore legs orange; abdomen with subdorsal and lateral series of orange spots on first seven segments and some ventral bands at base. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below the cell and vein 2 extending almost to termen; elongate spots between veins 3 and 5 and above veins 6 and 7. Hind wing with orange patch on base of inner area.

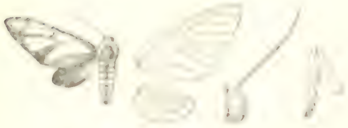
Fig. 40. - *Eressa ypleta*, ♂. ½.

Hab. Waigiou (*Wallace*), 1 ♂ 1 ♀, types† in Mus. Oxon. *Exp.* 28 millim.

Sect. IV. Antennæ ciliated; frons without furrow.

A. Hind wing with the tornus strongly lobed and the termen excised before it.

a. Fore femora and tibiæ of male with thick tufts of scales.

227. **Eressa megatorna**, n. sp.

♂. Black with a slight purplish tinge; frons, neck, the long hair fringing the tegulæ and patagia and the fore legs orange; abdomen with six orange bands. Fore wing with wedge-shaped semihyaline orange patch in cell; an elongate triangular patch below the cell; a spot above vein 6, and two spots with semihyaline centres between veins 3 and 5. Hind wing with an orange patch in and below the cell and some orange at tornus.

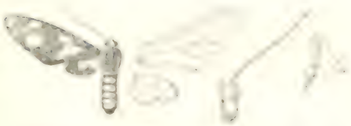
Fig. 41.--*Eressa megatorna*, ♂. ½.

Hab. Queensland (*Mackay*), 1 ♂ type. *Exp.* 28 millim.

b. Fore femora and tibiæ without tufts of scales.

*228. **Eressa angustipenna.**

Hydrusa angustipenna, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1087 (1890); Kirby, Cat. Het. p. 102.

♂. Black; tegulæ orange; abdomen with six orange bands. Fore wing with wedge-shaped hyaline patches in and below end of cell; spots between veins 3 and 5 and above 6; a minute point above vein 7. Hind wing with a patch which is orange in and below cell and vein 2 and hyaline between veins 2 and 5.

Hab. Queensland, 1 ♂, Coll. Meyrick. *Exp.* 26 millim.

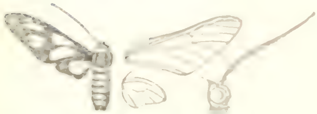
Fig. 42.
Eressa angustipenna, ♂. ½.

B. Hind wing very small, the termen evenly curved.

229. Eressa siamica.

Syntomis siamica, Wlk. xxxi. 70 (1864); Kirby, Cat. Het. p. 97.

♂. Black; antennæ white at tips; frons, tegulæ, patagia, and patches on thorax above and below orange; tarsi with the 1st joint white; abdomen with seven orange bands. Fore wing with an orange patch below base of cell and streak on inner margin; a large hyaline patch in end of cell; another below end of cell and vein 2; a spot above vein 2, a spot above vein 6, and two between veins 3 and 5; cilia white below apex. Hind wing with orange patch below the cell and two specks between veins 2 and 5.

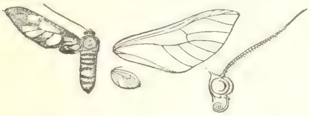

Fig. 43.—*Eressa siamica*, ♂. 1/1.

Hab. Siam (*Pfeiffer*), 1 ♂ type. *Exp.* 24 millim.

C. Hind wing normal.

230. Eressa discinota.

Syntomis discinota, Moore, Lep. Atk. p. 13 (1879); Hmpsn. Moths Ind. i. p. 216; Kirby, Cat. Het. p. 96.

Black suffused with metallic green; antennæ white at tips; palpi below, frons, gulæ, tegulæ, patagia, and lateral spots on meso- and metathorax orange; thorax below mostly orange; tarsi with the 1st joint white; abdomen with seven orange bands in male, six in female, more or less completely interrupted on dorsum. Wings hyaline, with the veins and margins narrowly greenish black. Fore wing with yellowish hyaline streak below costa; vein 5 widely separated from 4 and approximated to 6, with a small discocellular spot between them.

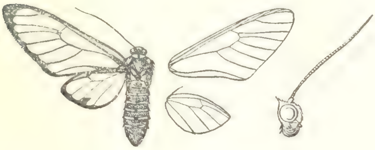

Fig. 44.—*Eressa discinota*, ♂. 1/1.

Hab. Assam, Khási Hills, Ind. Mus. & Moore Coll., type; Tenasserim. *Exp.* 40 millim.

Genus HYALÆTHEA.

	Type.
Hyalæthea, Butl. A. M. N. H. (5) xix. p. 216 (1887)…………	*woodfordi.*

Proboscis well developed; palpi short, porrect, thickly scaled, and hardly reaching beyond the frons; antennæ somewhat laminate; fore femora fringed with scales on inner side, a tuft of scales from joint of coxæ and femora; tibiæ with the spurs minute. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 7, 8, 9, 10, 11 stalked. Hind wing with the inner area expanded into a large roughly scaled lobe; vein 3 from well before angle of cell; 4 absent; 6, 7 on a long stalk; a small tuft of scales from thorax at base of hind wing.

A. Hind wing mostly orange .... *woodfordi.*
B. Hind wing black and hyaline .... *metaphæa.*

231. Hyalæthea woodfordi.

Hyalæthea woodfordi, Butl. A. M. N. H. (5) xix. p. 216 (1887); Kirby, Cat. Het. p. 103.

♂. Frons, tegulæ, and patagia fulvous orange; antennæ, vertex of head, and thorax black; abdomen fulvous orange, with six black bands and the anal tuft black. Fore wing black shot with purple; an elongate hyaline patch below the cell from base nearly to outer margin; a wedge-shaped patch occupying the cell; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with a small hyaline spot above base of vein 2, with a speck above its extremity between veins 3 and 5; the costa towards apex and apical part of termen black.

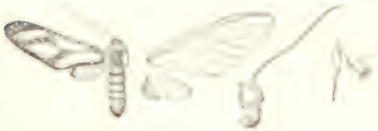

Fig. 45. *Hyalæthea woodfordi*, ♂. 1/1.

♀ with the orange on hind wing restricted to basal area and emitting a spur outwards above vein 2; no hyaline points.

Hab. SOLOMON Is., Alu (*Woodford*), 1 ♂ type; HALMAHEIRA, ♀ Coll. Staudinger. *Exp.* 32 millim.

*232. Hyalæthea metaphæa. (Plate V. fig. 22.)

Hyalathea metaphæa, Druce, A. M. N. H. (7) i. p. 147 (1898).

♀. Black; frons and patches on tegulæ, metathorax, and pectus orange; abdomen with orange dorsal band on 1st segment, the other segments slightly fringed with orange. Fore wing with elongate hyaline patch below cell and vein 2; a wedge-shaped patch in cell and elongate patches above veins 3, 4, and 6. Hind wing with hyaline patch below the cell and between veins 2 and 3, extending slightly into cell.

Hab. SOLOMONS, Guadalcanar (*Woodford*). *Exp.* 36 millim. Type ♀ in Coll. Druce.

Genus EPITOXIS.

Type.
Epitoxis, Wallengr. Wien. Ent. Mon. vii. p. 138 (1863)......... *amazoula.*

Proboscis well developed; palpi hairy, not reaching beyond the frons, which is hairy; antennæ of male bipectinate, with moderate branches dilated distally; tibiæ with the spurs short. Fore wing with vein 3 from well before angle of cell; 4, 5 shortly stalked or from cell; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the costa excised at middle; vein 2 from well before angle of cell; 3 and 5 stalked or from angle of cell; 4 and 7 absent.

Sect. I. Female with the wings aborted.

233. **Epitoxis amazoula.**

Thyretes amazoula, Boisd. Voy. Delegorgue, ii. p. 597 (1847); Herr.-Schäff. Aussereur. Schmett. f. 272 (1855); Kirby, Cat. Het. p. 100.

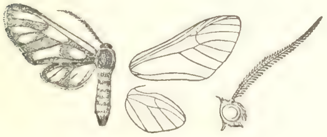

Fig. 46.—*Epitoxis amazoula*, ♂. $\frac{1}{1}$.

♂. Black; head and thorax mixed with pale yellow hair; patagia fringed with yellowish hair; thorax with yellow lateral patches; abdomen with seven orange-yellow bands. Fore wing with pale yellow streak below costa; semihyaline yellow patches below base and in end of cell; an oblique patch below vein 2; elongate spots between veins 3 and 5, and above 6. Hind wing with semihyaline yellow patch below the cell varying greatly in extent; a spot above vein 2, and often one above vein 3; cilia of both wings yellow.

♀ with the wings aborted and small.

Ab. 1. With all the markings nearly white.—Estcourt.

Ab. 2. The ochreous markings very extensive; fore wing with additional small spots above veins 2 and 5.—Newcastle.

Hab. Natal, D'Urban (*Trimen*), 1 ♂; Newcastle, 1 ♂; Estcourt (*J. Hutchinson*), 7 ♂ 3 ♀. *Exp.* 38 millim.

Sect. II. Female with the wings fully developed.

234. **Epitoxis procridia**, n. sp. (Plate V. fig. 29.)

♀. Brilliant metallic blue-green; tarsi with the 1st joint white. Fore wing with hyaline spots in end of cell and below vein 2, above vein 6, and between veins 3 and 5. Hind wing with hyaline spot between veins 2 and 3.

Hab. Central Africa, Ruwenzori, 8000 ft., 2 ♀ (*Scott Elliot*), types. *Exp.* 30 millim.

Genus **STICTONACLIA**, nov.

Type, *S. anastasia*.

Proboscis fully developed; palpi porrect, projecting about the length of head and thickly scaled; antennæ ciliated; tibiæ with the spurs minute. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from well before angle of cell; 3, 5 from angle or stalked; 4 absent; 7 absent.

Sect. 1. Hind wing with veins 3 and 5 stalked.

*235. **Stictonaclia amplificata.**

Naclia amplificata, Saalm. Ber. Senck. Ges. 1879–80, p. 261; Lep. Mad. i. p. 146, pl. 6. f. 95; Kirby, Cat. Het. p. 107.

♂. Head and thorax black; antennæ yellowish at tips; first two joints of palpi, points on frons and tegulæ, patches on patagia, and the greater part of legs orange; abdomen orange, the last two segments black, with the anal tuft orange. Fore wing black; a large rounded subbasal orange spot; a spot in end of cell and another from below middle of cell to vein 1; subterminal spots between veins 3 and 5 and above 6. Hind wing orange, with black patch at tornus.

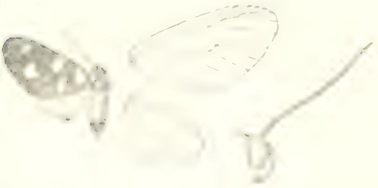
Fig. 47.—*Stictonaclia amplificata*, ♂. ½.

Hab. MADAGASCAR. *Exp.* 30 millim. Type+ in Mus. Frankfort.

SECT. II. Hind wing with veins 3 and 5 from cell.

A. Abdomen with dorsal brown fascia or spots.
  a. Thorax without dorsal orange patch; abdomen with the dark dorsal fascia regular .... *anastasia.*
  b. Thorax with dorsal orange patch; abdomen with the dark dorsal fascia contracting before the subterminal band .... *myodes.*
B. Abdomen with black and orange bands .... *reducta.*

236. Stictonaclia anastasia.

Naclia anastasia, Oberth. Ét. Ent. xviii. p. 2, pl. 1. f. 8 (1893).

♀. Black-brown; base of palpi, frons, shoulders, and the greater part of legs golden yellow; abdomen with broad lateral yellow fasciæ interrupted by a dark band on subterminal segment; the medial segments yellow below. Fore wing with large triangular yellow patch below base of cell; hyaline spots in end of cell and above base of vein 2 edged with yellow, and with a yellow patch below them; two hyaline spots edged with yellow between veins 3 and 5; a yellow spot above vein 6. Hind wing golden yellow, with terminal black-brown band, broad at apex and tapering to tornus.

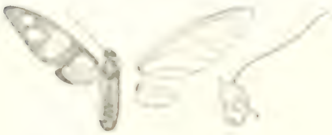
Fig. 48.—*Stictonaclia anastasia*, ♀. ½.

The figure of type has a slight yellow streak below costa of fore wing near base; no hyaline above vein 2; a slight yellow mark above vein 7. Hind wing with the terminal band nearly even in width.

Hab. MADAGASCAR (*Cloisel*), 1 ♀. *Exp.* 32 millim. Type in Coll. Oberthür.

*237. Stictonaclia myodes.

Syntomis myodes, Guér. Icon. R. Anim., Ins. pl. 84 bis (1829), p. 500 (1844); Boisd. Faun. Madag. pl. 11. f. 5; Kirby Cat. Het. p. 166.

Syntomis zygænoides, Mab. C. R. Soc. Ent. Belge, xxviii. p. clxxxviii (1884); Kirby, Cat. Het. p. 106.
Naclia agnes, Oberth. Ét. Ent. xviii. p. 4, pl. 1. f. 13 (1893).

♂. Head and thorax black; tegulæ and mesothorax with orange patches; abdomen orange, with dorsal black fascia expanding on medial segments, then contracting before the band on subterminal segment, which is incomplete below; the anal tuft black. Fore wing black, with triangular orange subbasal patch not reaching costa; a quadrate hyaline patch in end of cell, with an orange patch below it extending to vein 1, with small hyaline spot on it above vein 2; hyaline spots between veins 3 and 5 and above 6, with orange on their outer edges. Hind wing orange, with terminal black band diminishing from costa to vein 2.

♀. Fore wing with the spot below end of cell wholly orange, the spots below the cell small in typical form, large in *agnes*. Hind wing with black discoidal spot.

Hab. MADAGASCAR. *Exp.* 34 millim. Type † *zygænoides* in Coll. Mabille.

*238. **Stictonaclia reducta.** (Plate V. fig. 24.)

Syntomis reducta, Mab. Bull. Soc. Zool. Fr. iii. p. 84 (1878) ♀; Kirby, Cat. Het. p. 106.
Syntomis anapera, Mab. Bull. Soc. Zool. Fr. iii. p. 85 (1878) ♂; Kirby, Cat. Het. p. 106.

♂. Head and thorax black; frons, tegulæ, patagia, and patches on thorax and pectus orange; legs orange; abdomen black, with lateral orange patches becoming complete bands on 2nd, 3rd, and 6th segments, the ventral surface orange. Fore wing black, with irregular subbasal orange band not reaching costa and formed of three patches; a hyaline patch in end of cell with orange streak above it, and with the veins orange between it and hyaline patches above base of vein 2 and below the cell; hyaline spots between veins 3 and 5 and above 6, with some yellow on their edges. Hind wing orange, with terminal black band diminishing from apex to vein 2.

♀. Abdomen with the bands expanding into dorsal spots conjoined on terminal segments. Fore wing with the hyaline medial patch not extending below vein 6. Hind wing with black discal point.

Hab. MADAGASCAR. *Exp.* 30 millim. Type† *anapera* in Coll. Mabille.

Genus **PSEUDONACLIA**.

	Type
Pseudonaclia, Butl. Journ. Linn. Soc., Zool. xii. p. 351 (1865)...	*puella*.

Proboscis well developed; palpi short and porrect; antennæ bipectinate, with extremely short branches dilated at extremity; tibiæ with the spurs minute. Fore wing with vein 3 from close to angle of cell and downcurved; 4 and 5 on a long stalk; 6 from just below upper angle; 7, 8, 10, 11 stalked, 8 extremely short; 9 absent. Hind wing with vein 2 from near angle of cell 3 and 5 on a long stalk; 4 and 7 absent.

239. Pseudonaclia puella.

Naclia puella, Boisd. Voy. Delegorgue, ii. p. 596, no. 120 (1847); Wallengr. Svensk. Handl. v. (4) p. 13 (1864); Kirby, Cat. Het. i. p. 106.

♂. Head, thorax, and abdomen red-brown; palpi orange-yellow; abdomen orange at sides. Fore wing ferruginous red-brown; a quadrate hyaline spot in end of cell, with a bar-shaped spot below it across submedian interspace; a rounded postmedial spot below the costa, and a quadrate spot from just above veins 4 and 5 to vein 3. Hind wing orange-yellow, with a large black discoidal spot; an irregular terminal black band, the orange running out to near the margin between veins 7 and 2, the black running inwards along vein 2 to the cell.

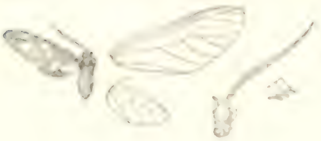
Fig. 49.
Pseudonaclia puella, ♂. 1/1.

♀ with the spot below the cell reduced; hind wing without the discoidal spot.

Hab. Delagoa Bay (*Mrs. Monteiro*), 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♂ 2 ♀; Natal (*J. V. Gooch*), 1 ♂. *Exp.*, ♂ 22, ♀ 30 millim.

Genus MICRONACLIA, nov.

Type, *M simplex.*

Proboscis well developed; palpi porrect, extending just beyond the frons; antennæ bipectinate, with branches of moderate length; hind tibiæ with the medial spurs absent. Fore wing with veins 3, 4, 5 from angle of cell; 6 from near upper angle; 7, 8, 9, 10, 11 stalked, 8 very short; 9 absent. Hind wing with vein 2 from towards angle of cell; 3 and 5 stalked; 4 and 7 absent.

A. Fore wing black, with orange markings.
  a. Fore wing with orange patch in end of cell .... *muscella.*
  b. Fore wing with medial orange band .... *tenera.*
B. Fore wing uniform fuscous brown .... *simplex.*

*240. Micronaclia muscella.

Syntomis muscella, Mab. C.R. Soc. Ent. Belge, xxviii. p. clxxxviii (1884); Kirby, Cat. Het. p. 107.
Naclia flavia, Oberth. Ét. Ent. xviii. p. 5, pl. 1. ff. 1, 2 (1893).

♀. Head, thorax, and abdomen orange-yellow; palpi, vertex of head, base and extremity of antennæ, and vertex of thorax fuscous; abdomen with dorsal series of somewhat triangular fuscous patches. Fore wing fuscous brown; a yellow patch on costa near base, conjoined on median nervure to a large patch on inner area with indented outer edge; a quadrate patch in end of cell extending nearly up to costa, below which it is dentate outwards; a subterminal patch between veins 1 and 3 and another from vein 4 to just below costa. Hind wing yellow, with terminal fuscous band expanding somewhat towards costa.

Ab. 1. Fore wing with the patch on inner area connected with the patch in end of cell instead of that on base of costa.

Hab. Madagascar. *Exp.* 30 millim. Type † in Coll. Mabille; *flavia* in Coll. Oberthür.

*241. Micronaclia tenera. (Plate V. fig. 14.)

Naclia tenera, Mab. Bull. Soc. Zool. Fr. iii. p. 85 (1878); Kirby, Cat. Het. p. 107.

Head and thorax dark, antennæ orange; abdomen orange, with dorsal series of small black spots. Fore wing black, with sinuous subbasal and medial yellow bands; a spot between veins 3 and 5 and one above 6. Hind wing orange, with terminal black band expanding widely at apex and between veins 2 and 3.

Hab. Madagascar. *Exp.* 22 millim.

This species is unknown to me; figured from drawing lent by M. Mabille.

242. Micronaclia simplex.

Pseudonaclia simplex, Butl. A. M. N. H. (5) iv. p. 236 (1879); Kirby, Cat. Het. p. 107.

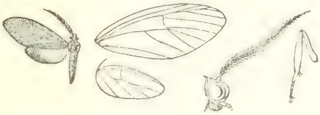

Fig. 50.
Micronaclia simplex, ♂. $\frac{1}{1}$.

Very dark red-brown. Hind wing orange-yellow, with the apical area dark brown, narrowing to a point before tornus.

Hab. Madagascar, type ♂, ♀ (*C. Shaw*). *Exp.*, ♂ 20, ♀ 18 millim.

Genus THYROSTICTA, nov.

Type, *T. quadrimacula.*

Proboscis well developed; palpi porrect, extending beyond the frons; tibiæ with the spurs minute. Fore wing with vein 3 from before angle of cell; 4, 5 from angle, 5 curved; 6 from below upper angle; 7, 8, 10, 11 stalked, 9 absent. Hind wing with veins 4, 5 stalked, 7 absent.

Sect. I. Hind wing with vein 3 stalked with 4, 5; antennæ of male ciliated.

A. Fore wing with orange medial spot on inner area separate from the band (♀)................................	*contigua.*
B. Fore wing without medial orange spot on inner area...	*butleri.*

*243. Thyrosticta contigua.

Dysauxes contigua, Saalm. Lep. Mad. i. p. 143, pl. 6. f. 93 (1884); Kirby, Cat. Het. p. 106.

♀. Head and thorax black; palpi, frons, patches on tegulæ and patagia, and the greater part of legs orange-yellow; abdomen orange, with black band on subterminal segment incomplete below. Fore wing black; a large subbasal orange patch not reaching costa or inner margin; a quadrate patch across end of cell, extending just above and below it, and with a rounded patch below it from vein 2 to just above inner margin; a subterminal rounded patch between veins 3 and 5, and a smaller patch from just below vein 6 to above 8. Hind wing orange, with terminal black band expanding on apical area and below vein 2; an indistinct discoidal spot more prominent below.

Hab. Madagascar. *Exp.* 30 millim. Type + in Mus. Frankfort.

*244. Thyrosticta butleri.

Syntomis butleri, Mab. Le Nat. ii. p. 134 (1884); Kirby, Cat. Het. p. 107.
Dysauxes distincta, Saalm. Lep. Mad. i. p. 144 (1884); Kirby, Cat. Het. p. 107.
Dysauxes expallescens, Saalm. Lep. Mad. i. p. 145 (1884); Kirby, Cat. Het. p. 107.
Dysauxes extensa, Saalm. Lep. Mad. i. p. 145 (1884); Kirby, Cat. Het. p. 107.

♂. Head and thorax black; first two joints of palpi, the lower part of frons, patches on patagia and mesothorax, and the greater part of legs orange; abdomen orange, the last two segments black, with the anal tuft orange. Fore wing black, with rounded orange subbasal spot; a medial orange band from below costa to above vein 1; a rounded subterminal spot between veins 3 and 5 and a spot above 6. Hind wing orange, with terminal black band expanding towards apex and at vein 2, and not reaching tornus; the underside wholly orange.

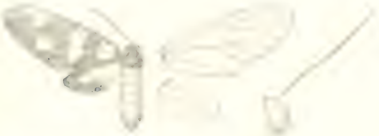

Fig. 51.—*Thyrosticta butleri*, ♀. 1/1.

♀. Mesothorax without the orange spot; fore wing with the medial band ending on vein 1, sometimes with acute, sometimes with rounded extremity, sometimes expanding below cell; hind wing with triangular black discoidal patch and terminal band on upper and under sides.

Ab. 1. *expallescens*: hind wing without the discoidal black patch.

Hab. Madagascar. *Exp.*, ♂ 26, ♀ 34–36 millim. Type + ♀ in Coll. Mabille; types + *distincta* ♂ and *extensa* ♀ in Mus. Frankfort; type + *expallescens* in Mus. Lubeck.

Sect. II. Hind wing with vein 3 from near angle of cell; antennæ of male with long plumose branches.

A. Hind wing orange, with terminal blackish band.
  a. Fore wing with orange spots (♀) .... *agatha.*
  b. Fore wing with yellowish-white patches .... *quadrimacula.*
  c. Fore wing with hyaline and one orange spot (♀) .. *minuta.*
B. Hind wing black, with basal irregular orange patch, and patch beyond cell (♀) .... *trimacula.*
C. Hind wing black, with the markings hyaline (♀) ... *tollini.*

*245. Thyrosticta agatha.

Naclia agatha, Oberth. Ét. Ent. xviii. p. 5, pl. 1. f. 12 (1893).

♀. Head and thorax black-brown; patagia orange; abdomen orange, with dorsal black stripe not reaching base or extremity. Fore wing black-brown, with orange antemedial patch from cell to inner margin; a spot in end of cell and subterminal spots on vein 2 and between veins 4 and 7. Hind wing orange, with terminal dark band narrowing to before tornus.

Hab. MADAGASCAR. *Exp.* 28 millim.

This species is unknown to me.

246. Thyrosticta quadrimacula.

Naclia quadrimacula, Mab. Bull. Soc. Zool. Fr. iii. p. 85 (1878); Oberth. Ét. Ent. xviii. pl. 1. f. 9; Kirby, Cat. Het. p. 107.
Pseudonaclia sylvicolens, Butl. A. M. N. H. (5) ii. p. 293 (1878).
Naclia quadrimacula, var. *confluens*, Oberth. Ét. Ent. xviii. p. 3, pl. 1. f. 10 (1893).
Naclia perpetua, Oberth. Ét. Ent. xviii. p. 3, pl. 1. f. 6 (1893).

♂. Head and thorax black-brown; palpi marked with whitish; patagia with golden yellow patches; abdomen golden yellow, with dorsal and lateral brown stripes. Fore wing dark brown, with large elongate yellowish-white basal patch; a medial elliptical patch from subcostal nervure to submedian fold; a subapical round spot below costa and subterminal spot between veins 5 and 3. Hind wing orange-yellow, with dark brown terminal band indented by the orange area at middle.

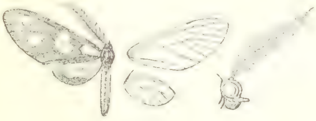

Fig. 52.
Thyrosticta quadrimacula, ♂. $\frac{1}{1}$.

Ab. 1. *confluens*: fore wing with the subterminal spots conjoined.

Ab. 2. *quadrimacula*, Oberth. (*nec* Mab.): abdomen without dorsal dark stripe.

Hab. MADAGASCAR, type *sylvicolens* (*W. D. Cowan*). *Exp.* 30 millim.

247. Thyrosticta trimacula.

Naclia trimacula, Mab. Bull. Soc. Zool. Fr. iii. p. 85 (1878); Oberth. Ét. Ent. xviii. pl. 1. f. 11; Kirby, Cat. Het. p. 107.

♀. Head, thorax, and abdomen black; patagia with orange spots; abdomen with orange at sides and on dorsum near base and before extremity. Fore wing black, with elongate orange patch on base of inner margin; a round hyaline spot in end of cell edged with orange scales, and with orange spot below it on and below median nervure; round hyaline spots edged with orange below costa towards apex and between veins 5 and 3. Hind wing with the basal half orange-yellow, with irregularly dentate outer edge; the apical half black, with orange postmedial patch from below costa to vein 2.

Hab. Madagascar, 1 ♀ (*C. Shaw*). *Exp.* 34 millim.

*248. Thyrosticta minuta.

Syntomis minuta, Boisd. Faun. Madag. p. 80, pl. 11. f. 6 (1833); Kirby, Cat. Het. p. 106.

♀. Head and thorax black; vertex of head, tegulæ, and a patch on mesothorax orange; abdomen orange, with dorsal black points on terminal segments. Fore wing black-brown; some orange at base; a hyaline spot in cell; two medial spots below cell, the one above inner margin orange, the upper hyaline; a hyaline spot beyond angle of cell and one above vein 6. Hind wing orange, with terminal black band dentate inwards near tornus.

Hab. Madagascar. *Exp.* 20 millim.

This species is unknown to me.

*249. Thyrosticta tollini.

Glaucopis tollinii, Keferstein, Jahrb. Akad. Erfurt, (2) vi. p. 13, f. 3 (1870); Kirby, Cat. Het. p. 103.

Naclia lugens, Oberth. Ét. Ent. xviii. p. 7, pl. 1. f. 14 (1893).

♀. Black; shoulders and fore coxæ with orange patches; abdomen with orange ventral patch on basal segments followed by a spot. Fore wing with small hyaline spots in end of cell, between veins 3 and 5 and above 6. Hind wing with hyaline patch below base of cell bisected by vein 1; a spot between veins 3 and 4.

Ab. 1. *lugens*: fore wing with small postmedial hyaline spot above vein 1.

Hab. Madagascar. *Exp.* 32 millim. Type *lugens* in Coll. Oberthür.

Genus DYSAUXES.

	Type.
Dysauxes, Hübn. Verz. p. 171 (1827)	*ancilla*.
Naclia, Boisd. Ind. Meth. p. 60 (1840)	*ancilla*.

Proboscis well developed; palpi porrect, reaching just beyond the frons; antennæ minutely ciliated; mid tibiæ with one pair of spurs; hind tibiæ with a single medial spur and a terminal pair. Fore wing with vein 3 from near angle of cell; 4, 5 from angle, 5 curved; 6 from near upper angle; 7, 8, 10, 11 stalked; 9 absent. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 7 absent.

A. Fore wing fulvous, with hyaline spots.
  a. Fore wing with medial spot below the cell always traceable, and usually a spot in the cell; hind wing orange with brown terminal band, the area below and beyond the cell often hyaline .... *punctata*.
  b. Fore wing without medial spots; hind wing of male fulvous brown, the inner margin orange; female with orange band below and beyond the cell .... *ancilla*.

B. Fore wing with the basal half hyaline and yellow, the outer half black with yellowish hyaline patch .... *syntomida.*
C. Fore wing black, with orange patches.
  a. Hind wing orange, with terminal black band............... *lucia.*
  b. Hind wing black, with orange basal and postmedial patches .... *quinquemacula.*
  c. Hind wing black, with orange fasciæ on costa and inner margin .... *cambouei.*

250. Dysauxes punctata.

Bombyx punctata, Fabr. Sp. Ins. ii. p. 207 (1781); Mill. Ann. Soc. Linn. Lyon (2), viii. p. 234, pl. 4. ff. 10, 11; Staud. Cat. p. 50; Kirby, Cat. Het. p. 108.
Noctua ancilla, var., Esper, Eur. Schmett. p. 51, pl. 85. f. 3 (1786).
Bombyx serva, Hübn. Eur. Schmett. iii. f. 115 (1827); Godt. Lép. France, iv. p. 381, pl. 39. f. 4.
Bombyx confamula, Hübn. Eur. Schmett. iii. ff. 226, 227 (1827).

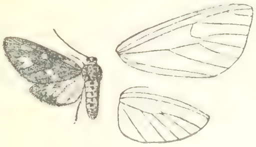

Fig. 53.
Dysauxes punctata, ♂. 1/1.
(From Moths India, vol. i.)

Dark yellowish brown; tegulæ and patagia marked with orange; metathorax with an orange patch; abdomen orange, with dorsal and sublateral series of black spots. Fore wing with yellowish-white spot in cell and larger spot below the cell; a postmedial subcostal spot and two in the interspaces between veins 3 and 5, usually well separated, rarely larger and conjoined. Hind wing orange, with brown spot on discocellulars, and often a brown streak on median nervure; a terminal brown band, broad at costa, narrowing between veins 5 and 3, then expanding and ending before tornus.

Hab. Central and S. Europe, Zeller and Frey Colls.; W. Asia; Kashmir, Moore Coll. *Exp.* 26 millim.

Subsp. 1. *hyalina*, Freyer, Neuere Beitr. v. p. 152, pl. 473. f. 2 (1845); Herr.-Schäff. Aussereur. Schmett. ii. p. 51, f. 127.

Hind wing with hyaline patches more or less developed below the cell and in the interspaces beyond lower angle; fore wing with the spot in cell sometimes reduced or absent.

Hab. E. Europe, Zeller Coll.; W. Asia.

Subsp. 2. *famula*, Freyer, Neuere Beitr. ii. p. 143, pl. 183. ff. 2, 3 (1836).

Usually more fulvous brown. Fore wing with the spot in cell and subcostal spot minute or absent; the spot below the cell often nearly obsolete. Hind wing with complete hyaline fascia below the cell extending round lower angle, the orange on inner area reduced or sometimes almost absent.

Hab. E. Europe, Dalmatia; W. Asia, Syracuse. Zeller Coll.

Subsp. 3. *servula*, Berce, Ann. Soc. Ent. Fr. (4) ii. p. 386, pl. 9. f. 9 (1862).

Differs from the typical form in the fore wing having all the spots reduced, any or all of them may be absent. *Exp.* 20–22 millim.

Hab. S. EUROPE, Italy, Leach Coll.

Subsp. 4. *parvigutta*, Christoff. Verh. Ver. Brünn, xxvii. p. 11 (1889); Rom. Mém. v. p. 63, pl. 1. f. 5.

Differs from the form *hyalina* in the fore wing having the medial spots reduced; the subcostal and upper subterminal spots absent.

Hab. ACHAL TEKKE.

Subsp. 5. *modesta*, Krulikowsky, Soc. Ent. ix. p. 161 (1895).

Differs from typical form in the spots on fore wing being hyaline yellow.

Hab. ASTRAKAN, Kinel Mts.

251. Dysauxes ancilla.

Noctua ancilla, Linn. Syst. Nat. xii. p. 835 (1766); Esp. Schmett. iv. p. 51, pl. 85. ff. 1, 2; Hubn. Eur. Schmett. iii. ff. 144, 245; Ochs. Schmett. Eur. iii. p. 157; Godt. Lep. Fr. iv. p. 379 pl. 39. ff. 2, 3; Staud. Cat. p. 50; Kirby, Cat. Het. p. 107.

Bombyx obscura, Fabr. Sp. Ins. ii. p. 206 (1781).

Tinea quadrimaculata, Goeze, Ent. Beytr. iv. (4) p. 126 (1783).

Phalæna lemepucta, Fourcr. Ent. Paris, ii. p 302 (1785).

Phalæna tripunctata, Scop. Faun. Flor. Insubr. ii. pl. 21. f. iii (1786).

♂. Fulvous brown; head and abdomen orange, the latter with a dorsal series of brown spots. Fore wing with a small round postmedial hyaline spot below the costa; two large spots in the interspaces between veins 3 and 5. Hind wing with the inner margin orange.

♀. Fore wing with a speck below the subcostal spot. Hind wing with the whole area below the cell orange, and joined by a curved postmedial band crossed by the dark nervures.

Hab. FRANCE; BELGIUM; GERMANY; ITALY, Zeller and Frey Colls.; E. EUROPE. *Exp.* 28 millim.

*252. Dysauxes syntomida.

Naclia syntomida, Staud. Deutsche Ent. Zeit., Lep. iv. p. 248 (1892), and vi. pl. 1. f. 9.

♂. Head and thorax black, tegulæ and patagia yellow; hind tibiæ and tarsi tinged with orange; abdomen orange, the 1st segment and part of 2nd dorsally black, followed by a series of black spots. Fore wing with the basal half semihyaline, with the median nervure and costal and inner areas yellow; a quadrate black spot below base of cell; the terminal half black, with large yellowish semihyaline patch between veins 3 and 7. Hind wing hyaline, the inner margin orange; a terminal black band narrowing from costa to a point at vein 1, its inner edge somewhat sinuous.

Hab. KURDISTAN, Mardin. *Exp.* 24 millim. Type † in Coll. Staudinger.

253. Dysauxes lucia.

Naclia lucia, Oberth. Ét. Ent. xviii. p. 6, pl. 1. f. 5 (1893).

♀. Head, thorax, and abdomen orange-yellow; antennæ and patches between their bases and behind them black; thorax with black patch on vertex; abdomen with more or less developed dorsal series of black spots. Fore wing with triangular yellow patch on base of costa, sometimes connected on median nervure with the irregular medial patch on inner area; a quadrate spot in end of cell; a subterminal patch between veins 1 and 3, and another patch from vein 4 to below costa. Hind wing orange-yellow, with terminal black band expanding towards apex and tornus.

Hab. Madagascar, 1 ♀ (*Shaw*). *Exp.* 26 millim. Type in Coll. Oberthür.

*254. Dysauxes quinquemacula.

Syntomis quinquemacula, Mab. Le Nat. ii. p. 134 (1882); Kirby, Cat. Het. p. 107.

Naclia perroteti, Oberth. Ét. Ent. xviii. p. 7, pl. 1. ff. 3, 4 (1893).

♀. Head, tegulæ, patagia, pectus, and legs orange; thorax black above; abdomen orange, with black band on subterminal segment incomplete below. Fore wing black; an orange point at base; a subbasal orange patch in and below cell; large round spots in middle of cell and on middle of vein 1; spots between veins 3 and 5 and above 6. Hind wing black; the basal area orange, extending along inner margin almost to tornus; a somewhat wedge-shaped patch beyond the cell with its outer edge angled.

Hab. Madagascar. *Exp.* 30 millim. Type † in Coll. Mabille, *perroteti* in Coll. Oberthür.

*255. Dysauxes? cambouei.

Naclia cambouei, Oberth. Ét. Ent. xviii. p. 6, pl. 1. ff. 17, 18 (1893).

Head orange; thorax black, with the patagia and patch on mesothorax orange; legs orange; abdomen orange, with black dorsal band on subterminal segment. Fore wing black-brown, with some orange at base; a subbasal patch in and below cell; a rounded patch in end of cell; a spot between veins 3 and 5 and one above 6. Hind wing black-brown, with orange fasciæ on costal and inner areas conjoined at base and reaching just beyond middle.

Hab. Madagascar, Tamatave. *Exp.* 32 millim.

This species is unknown to me.

Genus **TRITONACLIA**, nov.

Type, *T. kefersteini.*

Proboscis well developed; palpi upturned, the 2nd joint moderately scaled and reaching vertex of head, the 3rd well developed and somewhat porrect; antennæ of male with long bristles and cilia; tibiæ with the spurs moderate. Fore wing broad; vein 3 from well before angle; 4, 5 from angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 3 from long before angle of cell; 4, 5, from angle; 7 absent.

256. Tritonaclia kefersteini.

Hydrusa kefersteini, Butl. Cist. Ent. iii. p. 2 (1882); Kirby, Cat. Het. p. 102.

♂. Black-brown; patagia and tegulæ with bright yellow spots. Fore wing with somewhat quadrate pale yellow spot in end of cell; rounded spots below base and end of cell, the latter above vein 2; a subterminal spot above vein 6 and two spots above veins 3 and 5; a yellow streak on base of inner margin. Hind wing with large pale yellow patch below the cell extending nearly to tornus; a small spot above vein 3 and speck above vein 4.

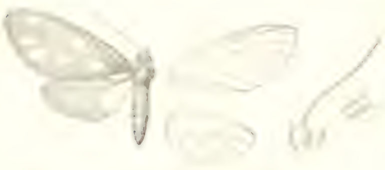
Fig. 54.—*Tritonaclia kefersteini*, ♂. ½.

Hab. Madagascar, Ankafana (*Cowan*), 1 ♂ type. *Exp.* 40 millim.

Genus MEGANACLIA.

Type

Meganaclia, Aurivillius, Ent. Tidskr. xiii. p. 280 (1892), non descr. ... *sippia*.

Proboscis absent; palpi slender, reaching beyond the frons and downcurved; antennæ of male unserrate, of female with bristles; tibiæ without spurs. Fore wing with vein 3 from well before angle of cell, 4, 5 shortly stalked; 7, 8, 9, 10, 11 stalked. Hind wing with vein 3 from well before angle of cell; 4 from angle; 7 absent.

Sect. I. Hind wing with veins 4, 5 stalked.

257. Meganaclia carnea, n. sp. (Plate VI. fig. 27.)

♀. Pale flesh-pink; antennæ black, white at tips; abdomen with black segmental dorsal lines except on 1st and terminal segments; wings semihyaline. Fore wing with hyaline spot in end of cell; small spots above and below base of vein 2 and a larger spot below its middle; spots between veins 3 and 5 and above 5 and 6. Hind wing with hyaline spots between veins 3 and 4 and a point above 4.

Hab. Gaboon; Angola, 1 ♀ type. *Exp.* 48 millim.

Sect. II. Hind wing with vein 5 from above angle of cell.

258. Meganaclia sippia.

Naclia sippia, Plötz, Stett. Ent. Zeit. xli. p. 78 (1880); Kirby, Cat. Het. p. 106.

♀. Head and tegulæ pale yellowish; palpi and antennæ fuscous; thorax whitish, with fuscous spot on dorsum; abdomen whitish, the segments fringed with pale yellow hair; a dorsal series of black spots; wings very sparsely clothed with hair-like scales. Fore wing with obscure series of white spots beyond the cell between veins 2 and 7. Hind wing more hyaline, with brownish lunule between bases of veins 2 and 3, and brownish terminal band broad and obsolescent towards costa, narrowing to tornus, its inner edge waved and defining a very obscure postmedial series of spots.

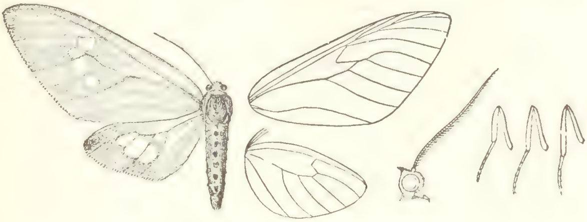

Fig. 55.—*Meganaclia sippia*, ♀. 1/1.

♂ rather darker, with the spots smaller.

Hab. Old Calabar, 1 ♀ (*Rutherford*); Cameroons; Niger. *Exp.* 60 millim.

Genus THYRETES.

	Type.
Thyretes, Boisd. Voy. Delegorgue, ii. p. 596 (1847)	*hippotes.*

Proboscis absent; palpi minute, hairy, downturned; antennæ bipectinate in male, serrate in female; legs fringed with hair; mid and hind tibiæ with minute terminal pairs of spurs; abdomen with two small dorsal tufts at base. Fore wing long and narrow, the costa arched towards apex which is somewhat produced and acute; veins 3, 4, 5 well separated at origin; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 3 from near angle of cell; 5 from well above angle or middle of discocellulars; 7 absent.

Sect. I. Build stout; frons with large tuft of hair; femora and tibiæ fringed with long hair.

A. Wings with the markings hyaline............................	*hippotes.*
B. Wings with the markings yellow	*montana.*

259. Thyretes hippotes.

Sphinx hippotes, Cram. Pap. Exot. iii. pl. 286. A (1780); Kirby, Cat. Het. p. 103.

Head and tegulæ white; a large frontal tuft brown below; branches of antennæ blackish, the basal joint yellow; thorax white, with brown dorsal stripe, the patagia fringed with brown; abdomen white, with dorsal and lateral series of brown diamond-shaped marks,

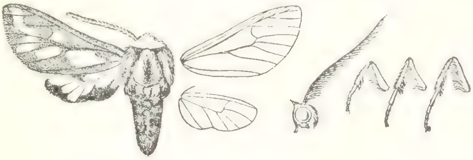

Fig. 56.—*Thyretes hippotes*, ♂. 1/1.

the dorsal series with yellow spots on them. Fore wing brown, with more or less developed whitish streak below costa; a large wedge-shaped semihyaline white patch below the cell; a small spot in lower end of cell; an elliptical spot above vein 2, two between veins 3 and 5, and an oblique series of three spots between vein 5 and apex. Hind wing with confluent semihyaline white markings consisting of patches in and below cell, and a series of four spots between vein 2 and apex, leaving a brown mark beyond upper angle of cell and a very irregular terminal brown band.

Hab. Cape Colony, 1 ♂ 1 ♀ (*Trimen*). *Exp.*, ♂ 36, ♀ 50 millim.

*260. Thyretes montana. (Plate VI. fig. 7.)

Thyretes montana, Boisd. Voy. Delegorgue, ii. p. 597 (1847); Kirby, Cat. Het. p. 103.

♂. Head and thorax orange-yellow; palpi and antennæ black-brown; tegulæ and patagia edged with brown; legs brown, fringed with yellow; abdomen brown, with dorsal and subdorsal series of large conjoined orange patches, the ventral surface and anal tuft orange. Fore wing brown, with quadrate yellow spot in end of cell; a somewhat wedge-shaped patch below the cell; a spot above base of vein 2; two spots between veins 3 and 5 and an oblique series of three small spots between vein 5 and apex. Hind wing yellow with the terminal half brown, the yellow basal area conjoined to a spot above base of vein 2 and spots between veins 3 and 5; an obliquely placed spot between vein 5 and costa near apex.

Hab. Cape Colony; Zululand. *Exp.* 34 millim.

Sect. II. Build slender; frons nearly smooth; femora and tibiæ slightly fringed with hair.

A. Abdomen with dorsal series of yellow spots.
  a. Head white.. *caffra.*
  b. Head yellow .... *negus.*
B. Abdomen brown, with six yellow bands.................. *monteiroi.*

261. Thyretes caffra.

Thyretes caffra, Wallengr. Wien. Ent. Mon. vii. p. 138 (1863); Kirby, Cat. Het. p. 103.

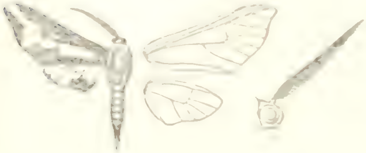

Fig. 57.—*Thyretes caffra*, ♂. 1/1.

Head and tegulæ white; antennæ brown, the shaft white towards extremity, the basal joint and a line behind the head yellow; thorax brown; abdomen brown, with two dorsal white tufts at base; a dorsal series of yellow spots and lateral series of white spots. Fore wing brown, with elongate semihyaline white patch below the cell; a small triangular spot in end of cell; a series of six conjoined spots between vein 2 and apex. Hind wing with the white semihyaline markings conjoined, the basal white area with irregular outer edge and four spots between vein 2 and apex, leaving a brown mark beyond upper end of cell and an irregular terminal band very narrow or obsolete between apex and vein 3.

Hab. Cape Colony (*Drège*); Delagoa Bay (*H. A. Junot*). *Exp.*, ♂ 38, ♀ 42 millim.

262. Thyretes negus.

Thyretes negus, Oberth. Ét. Ent. iii. p. 31, pl. 3. f. 2 (1878); Kirby, Cat. Het. p. 103.
Thyretes phasma, Butl. P. Z. S. 1896, p. 846.

Head orange-yellow; antennæ brown, white at tips; abdomen brown, with some white hairs; a white dorsal tuft at base and a series of yellow spots. Fore wing brown, with a hyaline white triangular spot in upper end of cell; an elongate white patch below the cell and vein 2 extending nearly to termen; a triangular spot above vein 2 and a series of five spots between vein 3 and apex. Hind wing with conjoined hyaline white markings, the costal area and a narrow terminal band running inwards along vein 2 brown.

The type of *negus* from Abyssinia has the spot in upper angle of cell of fore wing large, whilst *phasma* from Nyasaland and the specimen from Sierra Leone have it small.

Hab. Sierra Leone (*C. B. Mitford*); Nyasaland (*Crawshay*), type *phasma*; Abyssinia. *Exp.*, ♂ 28, ♀ 38 millim.

263. Thyretes monteiroï.

Thyretes monteiroï, Butl. Journ. Linn. Soc., Zool. xii. p. 359 (1876); Kirby, Cat. Het. p. 103.

♀. Head, tegulæ, and patagia orange-yellow; antennæ brown; thorax brown; abdomen brown, with six yellow bands and the extremity yellow. Fore wing brown, with elongate semihyaline yellow patch below the cell from near base to middle of vein 2; a large spot above vein 2 and spot in upper end of cell; a postmedial spot above vein 6 and speck above vein 7; two conjoined spots between veins 3 and 5. Hind wing with semihyaline patch in cell conjoined to a yellower patch below base of cell; a speck between veins 2 and 3 and two conjoined spots between veins 3 and 5.

Hab. W. Africa, Ambriz (*Mrs. Monteiro*), 1 ♀ type. *Exp.* 30 millim.

Genus **THYROGONIA**, nov.

Type, *T. efulensis*.

Proboscis absent; palpi projecting about the length of head; antennæ of female serrate; mid and hind tibiæ with small terminal pairs of spurs. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from middle of discocellulars; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 3 from long before angle of cell; 4, 5 stalked, 5 obsolescent; 7 absent.

*264. Thyrogonia efulensis.

Syntomis efulensis, Holland, Ent. News Philad. 1898, p. 12.

♀. Bluish black; abdomen with silvery blue lateral patches except towards extremity. Fore wing with quadrate hyaline spot in end of cell; slight whitish streaks above and below vein 6 and whitish patches in the interspaces between vein 5 and inner margin, towards which they increase in length, below vein 1 extending nearly to base. Hind wing with hyaline patches below the cell and between veins 2 and 4.

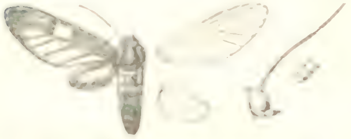

Fig. 58.—*Thyrogonia efulensis*, ♀. 1/1.

Hab. W. Africa, Bule Country (*Good*), type † ♀ in Coll. Holland. *Exp.* 36 millim.

Genus APISA.

Type.

Apisa, Wlk. iv. 916 (1855) .... *canescens*.

Proboscis absent or minute; palpi porrect, extending about the length of head and clothed with hair; antennæ bipectinate with long branches, shorter in female; head, thorax, and abdomen more or less clothed with rough hair; mid and hind tibiæ with minute terminal pairs of spurs. Fore wing short, the termen very long; vein 3 from before angle of cell; 4, 5 from angle; the discocellulars acutely angled; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing small; veins 3 and 5 separate at origin; 4 absent; 7 absent; a short veinlet from angle of discocellulars.

A. Fore wing dark brown, with hyaline spots.
  a. Abdomen with the ventral surface orange .... *connexa*.
  b. Abdomen with the ventral surface white .... *leucogastra*.
  c. Abdomen with the ventral surface pink .... *abdominalis*.
  d. Abdomen with the ventral surface dark.
    *a*¹. Abdomen with subdorsal white spots .... *chrysopyga*.
    *b*¹. Abdomen without spots.
      *a*². Fore wing with the spots whitish .... *kerri*.
      *b*². Fore wing with the antemedial spots yellow, the postmedial hyaline .... [illegible]
    *c*¹. Abdomen with dorsal and lateral orange spots .... *tristigma*.
B. Fore wing pale brown, with triangular yellow antemedial patch .... [illegible]
C. Fore wing uniform greyish .... *canescens*.
D. Wings white; fore wing with the apical half fuscous; head and thorax orange.. *melaleuca*.
E. Wings hyaline .... [illegible]

265. Apisa connexa.

Euchromia connexa, Wlk. i. 246 (1854); Butl. Ill. Het. i. p. 18, pl. 8. f. 1; Kirby, Cat. Het. p. 110.

♀. Black with a purple tinge; frons, vertex of head, metathorax, and sides of thorax with brilliant blue patches; tegulæ, patagia, and coxæ orange; abdomen orange below and at sides, connected by a dorsal band on penultimate segment and at extremity. Fore wing with a quadrate hyaline spot in end of cell. Hind wing with hyaline patch below the cell and between veins 2 and 5, the veins crossing it dark; the terminal band rather broad.

Hab. Fernando Po, 1 ♀ (*Fraser*), type. *Exp.* 36 millim.

*266. **Apisa leucogastra.** (Plate V. fig. 10.)

Syntomis leucogastra, Holland, Psyche, vi. p. 393 (1893).

♀. Black-brown; palpi golden yellow; fore coxæ and the greater part of tibiæ and tarsi yellow; abdomen with dorsal and subdorsal fiery red spots on 1st segment, traces of segmental lines; the terminal segment orange above; the ventral surface white except terminal segment. Fore wing with hyaline white spots below origin of vein 2, in end of cell, between veins 3 and 5 and above vein 6. Hind wing with traces of whitish point between bases of veins 3 and 5.

Hab. W. Africa, Talaguga (*Good*), type † in Coll. Holland. *Exp.* 30 millim.

*267. **Apisa? abdominalis.**

Syntomis abdominalis, Ehrmann, Can. Ent. xxvi. p. 70 (1894).

♂. Head and thorax black; abdomen dark red, with fine black lateral stripes, the last two segments black, the ventral surface pink. Fore wing dark brown, with two large oval semihyaline spots on disk, the largest towards tornus. Hind wings uniform black.

Hab. Liberia, Grand Ses. *Exp.* 18 millim.

This species is unknown to me.

*268. **Apisa chrysopyga.** (Plate V. fig. 11.)

Syntomis chrysopyga, Plötz, Stett. Ent. Zeit. xli. p. 79 (1880); Kirby, Cat. Het. p. 106.

♀. Dark brown; antennæ and tarsi pale yellow; abdomen with subdorsal white spots on 2nd segment, followed by points on the other segments; the terminal segment fulvous. Fore wing with small semihyaline spot above middle of vein 1; more prominent spots in end of cell and between veins 3 and 5 and a point above 6. Hind wing with semihyaline point between bases of veins 3 and 5.

Hab. Cameroons, in Mus. Stockholm. *Exp.* 32 millim.

*269. **Apisa kerri.** (Plate V. fig. 12.)

Syntomis kerri, Holland, Ent. News Philad. 1898, p. 12.

♂. Black-brown; antennæ white at tips; tarsi yellowish; abdomen with the extremity fiery red above. Fore wing with white spots below middle of cell, in end of cell, between veins 3 and 5 and above 6. Hind wing with whitish patch below cell and point between bases of veins 3 and 5.

Hab. W. Africa, Bule Country (*Kerr*), type † in Coll. Holland. *Exp.* 26 millim.

*270. Apisa ? cleta.

Syntomis cleta, Plötz, Stett. Ent. Zeit. xli. p. 79 (1880); Kirby, Cat. Het. p. 105.

Dark brown; head reddish yellow; abdomen reddish yellow above, with six dark bands and the extremity dark. Fore wing with two yellow antemedial spots and two hyaline postmedial, each traversed by dark veins. Hind wing with the basal half hyaline, the inner area yellow.

Hab. Cameroons, Victoria. *Exp.* 22 millim.

This species is unknown to me.

*271. Apisa tristigma.

Naclia tristigma, Mab. Nov. Lep. xii. p. 148, pl. 21. f. 2 (1895).

♀. Rufous-brown; palpi, antennæ, and tarsi orange; back of head and metathorax with orange patches; abdomen with dorsal series of orange spots except on 1st segment; lateral series of spots and the terminal segment orange. Fore wing with small orange-red spot in end of cell; a large spot below base of vein 2 extending nearly to inner margin; a spot between veins 3 and 5, and traces of a spot above 6. Hind wing with traces of orange spot between veins 3 and 5.

Hab. Sierra Leone. *Exp.* 29 millim. Type † in Coll. Staudinger.

272. Apisa monotica. (Plate V. fig. 15.)

Anace monotica, Holland, Psyche, vi. p. 395 (1893).

♂. Brownish grey; head and tegulæ yellowish; branches of antennæ blackish; abdomen with a pale band on 1st segment. Fore wing with a pale yellow triangular patch before middle, its base on subcostal nervure and apex on vein 1. Hind wing yellowish white, the terminal area suffused with brownish grey.

Hab. Old Calabar (*Rutherford*), 2 ♂; Ogové R. *Exp.* 24 millim. Type in Coll. Holland.

273. Apisa canescens.

Apisa canescens, Wlk. iv. 917 (1855); Kirby, Cat. Het. p. 220.
Psychotoë pallota, Plötz, Stett. Ent. Zeit. xli. p. 78 (1880); Kirby, Cat. Het. p. 111.
Apisa cinereo-costata, Holland, Psyche, vi. p. 394 (1893), ♂.
Apisa cana, Holland, Psyche, vi. p. 394 (1893), ♀.

♂. White; head, thorax, and abdomen suffused with fuscous;

antennæ with the branches brownish. Fore wing slightly suffused with fuscous, the veins and costa darker.

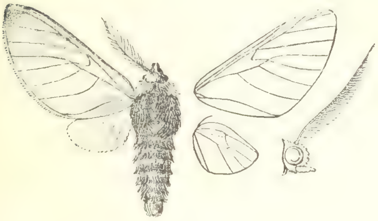

Fig. 59.—*Apisa canescens*, ♂. $\frac{1}{1}$.

♀. Both wings wholly suffused with fuscous.

Ab. 1. A ♀ from Sierra Leone white like the ♂.

Ab. 2. A dwarf ♂ 26 millim., from Zanzibar, fuscous like ♀. Coll. Mabille.

Hab. Sierra Leone (*Foxcroft*); Natal (*Gueinzius*, *Hutchinson*); S. Africa, type. *Exp.*, ♂ 32–42, ♀ 38–64 millim. Types † *cinereo-costata* and *cana*, Coll. Holland, Ogové River, W. Africa.

*274. **Apisa melaleuca.** (Plate V. fig. 16.)

Anace melaleuca, Holland, Ent. News Philad. 1898, p. 13.

♂. Head and thorax orange; antennæ whitish, the branches fuscous; legs and abdomen yellowish white, the latter fuscous towards extremity; wings yellowish white. Fore wing with the apical half fuscous, its inner edge curved from costa before middle to tornus, the veins crossing it darker.

Hab. Cameroons, type † in Coll. Holland. *Exp.* 28 millim.

*275. **Apisa crenophylax.** (Plate V. fig. 18.)

Syntomis crenophylax, Holland, Psyche, vi. p. 393 (1893).

♂. Black; head, thorax, and abdomen with patches of metallic blue; frons white; tegulæ and patagia with orange-red patches; abdomen with orange-red dorsal band on 4th segment. Fore wing hyaline; the veins and margins black; a black fascia on inner area expanding at middle; a fascia between veins 5 and 6 which are approximated. Hind wing hyaline, the veins and margins black; the costa lobed at middle.

Hab. W. Africa, Ogové R. (*Good*). *Exp.* 24 millim. Type † in Coll. Holland.

Genus **METARCTIA.**

	Type.
Metarctia, Wlk. iii. 769 (1855)	*rufescens.*
Zagaris, Wlk. v. 1096 (1855)	*crassa.*
Decimia, Wlk. vii. 1717 (1856)	*meteus.*
Anace, Wlk. vii. 1719 (1856)	*perpusilla.*
Balacra, Wlk. vii. 1721 (1856)	*cœruleifascia.*
Hebena, Wlk. vii. 1722 (1856)	*lateritia.*
Hexaneura, Wllgrn. Wien. Ent. Mon. iv. p. 164 (1860)	*rufescens.*

Proboscis absent; palpi porrect, hardly reaching beyond frons and clothed with hair; antennæ of male bipectinate, with long branches in male, of female with very short branches or serrate; head, thorax, and abdomen clothed with long rough hair; tibiæ with terminal pairs of spurs; abdomen very long. Fore wing with vein 3 from before angle of cell; 4 5 shortly stalked or from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from long before angle of cell; 3 from before angle; 4, 5 from angle, shortly stalked or separate; 7 absent.

A. Fore wing with hyaline spots.
  a. Abdomen pale grey-brown, with black bands on six medial segments, anal tuft crimson.... .... *perpusilla.*
  b. Abdomen scarlet, with blue-black bands .... *cæruleifascia.*

B. Fore wing without hyaline spots.
  a. Colour orange-red.
    *a*¹. Antennæ black; fore wing with the interspaces normally fuscous .... *lateritia.*
    *b*¹. Antennæ orange, fore wing with fuscous in and beyond cell and above vein 2, leaving some red spots. *invaria.*
    *c*¹. Antennæ white.
      *a*². Fore wing suffused with fuscous, leaving red spots in, below, and beyond the cell .... *hæmatoessa.*
      *b*². Fore wing with the cilia only fuscous .... *hæmatosphages.*
  b. Colour rufous.
    *a*¹. Fore wing with yellowish spots.................... .... *paracharia.*
    *b*¹. Fore wing without yellowish spots.
      [illegible]
      *b*². Antennæ whitish .... *hæmatica.*
      *c*². Antennæ yellow or brown .... *flaviceps.*
  c. Colour pale reddish and fuscous.
    *a*¹. Fore wing with two pink points at base and discocellular spot; hind wing fuscous........................ *rubripuncta.*
    *b*¹. Fore wing without pink spots; hind wing whitish to dusky rufous.
      [illegible]
      *b*². Tegulæ pink .... *inconspicua.*
  d. Colour uniform fuscous .... *benitensis.*
  e. Colour fulvous and fuscous.
    *a*¹. Wings fuscous, the cilia fulvous.
      *a*². Fore wing with fulvous costal fascia widening to base..... .... *metrus.*
      *b*². Fore wing without costal fascia........................ *incensa.*
    *b*¹. Wings fulvous yellow slightly tinged with fuscous, [illegible]

276. Metarctia perpusilla. (Plate V. fig. 19.)

Anace perpusilla, Wlk. vii. 1720 (1856); Kirby, Cat. Het. p. 220.

♂. Pale yellowish grey-brown; palpi, basal joint of antennæ, and legs pale crimson; abdomen with six black rings on medial segments, the anal tuft crimson. Fore wing tinged with red, especially on medial area; traces of a hyaline patch below base of cell; a large hyaline white spot in upper angle of cell and a wedge-shaped patch below base of vein 2; a small spot above vein 2; four spots between veins 3 and 7, the one between veins 4 and 5 smaller and nearer the termen. Hind wing pale, the inner area tinged with crimson.

Veins 4, 5 of both wings stalked.

Hab. ? SIERRA LEONE, 1 ♂ type. *Exp.* 30 millim.

277. **Metarctia cæruleifascia.** (Plate V. fig. 13.)

Balacra cæruleifascia, Wlk. vii. 1721 (1856); Kirby, Cat. Het. p. 221.
Automolis ehrmanni, Holland, Psyche, vi. p. 535 (1893).

♀. Head scarlet; palpi, antennæ, and a band between antennæ brown; thorax brown; tegulæ edged with scarlet, patagia and patches on meso- and metathorax scarlet; legs scarlet and brown; abdomen scarlet, with fuscous bands tinged with metallic blue scales. Fore wing red-brown, with some scarlet marks at base of costa and median nervure and some crimson at base of inner area; small hyaline spots in upper angle of cell, below base of vein 2, and a series of four spots beyond the cell between veins 3 and 7, the two upper larger, some red on terminal area near tornus. Hind wing yellow, crimson towards base; the cilia fuscous.

Both wings with veins 4, 5 from a point. Antennæ minutely serrate.

Ab. 1. *ehrmanni*: fore wing with the hyaline spots larger, especially the spots below base of vein 2 and between veins 5 and 6; hind wing uniform red.

Hab. Sierra Leone, 1 ♀ type; Liberia, type † ♀ *ehrmanni* in Coll. Holland. *Exp.* 62 millim.

278. **Metarctia lateritia.**

Automolis lateritia, Herr.-Schäff. Aussereur. Schmett. f. 274 (1855); Kirby, Cat. Het. p. 221.
Anace rubra, Wlk. vii. 1720 (1856).
Hebena venosa, Wlk. vii. 1723 (1856).
Hexaneura cinnamonea, Wllgrn. Wien. Ent. Mon. iv. p. 164 (1860); Kirby, Cat. Het. p. 433.
Automolis unicolor, Oberth. Ann. Mus. Genov. xv. p. 186 (1880); Kirby, Cat. Het. p. 221.
Automolis kelleni, Snell. Notes Leyd. Mus. viii. p. 1 (1886); Tijd. v. Ent. xxix. p. 224, pl. 8. f. 1; Kirby, Cat. Het. p. 221.

Bright scarlet; antennæ and sides of palpi black; tibiæ and tarsi black. Fore wing with the interspaces fuscous; veins 4, 5 from a point or shortly stalked. Antennæ of female serrate.

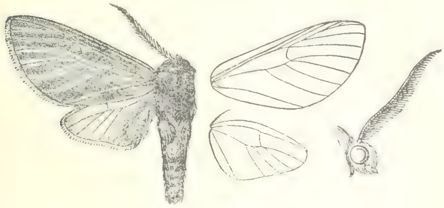

Fig. 60.—*Metarctia lateritia*, ♂. $\frac{1}{1}$.

Ab. 1. Fore wing with the fuscous in interspaces reduced or absent.

Ab. 2. *kelleni.* Thorax and fore wing much browner, leaving red spots on the former and the veins of the latter narrowly red.

Hab. Galla Country; Nyasaland (*Crawshay*); Natal (*Gooch, Gueinzius, Marshall*); Bechuanaland (*Sir C. Metcalf*); Cape Colony, type *rubra*. *Exp.* 44–60 millim. Type † *venosa* in Mus. Oxon.

279. Metarctia invaria. (Plate V. fig. 20.)

Anace invaria, Wlk. vii. 1720 (1856); Kirby, Cat. Het. p. 221.
Metarctia crubescens, Wlk. xxvi. 315 (1864); Kirby, Cat. Het. p. 221.
Plegapteryx syntomia, Plötz, Stett. Ent. Zeit. 1880, p. 85; Kirby, Cat. Het. p. 221.
Plegapteryx silacea, Plötz, Stett. Ent. Zeit. 1880, p. 86; Kirby, Cat. Het. p. 221.
Thyretes melinos, Mab. Ann. Soc. Ent. Fr. (6) x. p. 37 (1890); Kirby, Cat. Het. p. 103.
Metarctia pareclecta, Holland, Psyche, vi. p. 395 (1893).
Metarctia lutea, Holland, Psyche, vi. p. 396 (1893).

Orange-red suffused with brown; head, thorax, and abdomen yellow below. Fore wing with brown at base of costa and in and beyond cell, leaving red spots in end of and beyond the cell and above base of vein 6; an antemedial brown band and a patch between veins 2 and 3 extending more or less towards termen; the veins and cilia brown. Hind wing brown, reddish towards costa.

Antennæ of female with short branches; palpi in female not reaching beyond frons. Veins 4, 5 of both wings shortly stalked or from a point.

Ab. 1. *crubescens*=*pareclecta*. Bright orange-red; thorax tinged with brown; the brown markings of fore wing standing out prominently; hind wing orange-red, the cilia fuscous.

Ab. 2. Hind wing with the cilia yellow.—Opobo, Old Calabar, 2 ♀.

Ab. 3. *lutea*. Yellow; fore wing sometimes with a fuscous bar across submedian interspace at middle of vein 2.—Ogové R., Old Calabar.

Hab. W. Africa, type ♀, Ogové R., types † *pareclecta* and *lutea* in Coll. Holland; Sierra Leone (*Foxcroft*), 1 ♀ type *crubescens*; Old Calabar (*Miss Kingsley*). *Exp.* 34–36 millim. Type † *syntomia* in Coll. Staudinger.

*280. Metarctia hæmatoessa. (Plate V. fig. 17.)

Metarctia hæmatoessa, Holland, Psyche, vi. p. 396 (1893).

♀. Orange-red; antennæ white; head and thorax suffused with fuscous. Fore wing suffused with fuscous, leaving some red at base of inner area and spots below origin of vein 2, in end of cell, and beyond the cell above bases of veins 3, 4, 5; veins and cilia fuscous. Hind wing pinkish red, the cilia fuscous.

Hab. W. Africa, Ogové R. (*Good*), type † ♀ in Coll. Holland. *Exp.* 48 millim.

*281. Metarctia hæmatosphages. (Plate V. fig. 25.)

Metarctia hæmatosphages, Holland, Psyche, vi. p. 396 (1893).

♀. Orange-red; antennæ white; thorax with very slight fuscous tinge; wings with slight fuscous irroration, the veins tinged with fuscous; cilia fuscous.

Hab. W. Africa, Ogové R. (*Good*), type † ♀ in Coll. Holland. *Exp.* 42 millim.

282. **Metarctia parachoria.** (Plate V. fig. 28.)

Anace parachoria, Holland, Psyche, vi. p. 395 (1893).

♂. Rufous with a scarlet tinge; abdomen with subdorsa whitish spots on 2nd segment and less prominent spots on next three segments; a dorsal band on terminal segment. Fore wing with small yellowish-white spot in end of cell; an oblique medial spot above vein 1; a large rounded spot between veins 3 and 5 and a smaller spot above vein 6. Hind wing with obscure pale rounded spot beyond lower angle of cell.

Hab. W. AFRICA, Ogové R., 1 ♂. *Exp.* 30 millim. Type † in Coll. Holland.

283. **Metarctia burra.**

Anace burra, Schaus, Lep. S. Leone, p. 23, pl. i. f. 6 (1893).

♂. Pale pinkish rufous; palpi, antennæ, and stripes on the legs blackish. Fore wing with obscure fuscous discocellular spot. Hind wing pale yellowish.

Ab. 1. Redder; fore wing without discoidal spot.—Congo, 1 ♂.

Hab. SIERRA LEONE (*Clements*), 1 ♂; E. AFRICA, Mgana (*Betton*), 1 ♂. *Exp.* 40 millim. Type † in Coll. Schaus.

284. **Metarctia hæmatica.** (Plate V. fig. 26.)

Metarctia hæmatica, Holland, Psyche, vi. p. 396 (1893).

♂. Uniform rufous, the thorax and costa of fore wing slightly tinged with fuscous; antennæ pure white. Hind wing with veins 4, 5 separate.

♀. Red-brown; antennæ ochreous white; head and thorax, and the fore wing slightly tinged with fuscous; antennæ serrate.

Hab. R. NIGER, Asaba, 1 ♂ (*Crosse*); OGOVÉ R.; BR. E. AFRICA, 1 ♀ (*Ansorge*). *Exp.*, ♂ 28, ♀ 38 millim. Type † in Coll. Holland.

285. **Metarctia flaviceps,** n. sp. (Plate V. fig. 21.)

♂. Deep rufous; head orange; antennæ yellow or brown; pectus, ventral surface of abdomen, and anal tuft orange. Fore wing with the veins blackish; an obscure dark curved antemedial line; traces of a fuscous patch below end of cell and of a line from costa before apex to vein 5. Underside with the inner area of fore wing pinkish.

Hab. CAMEROONS, 1 ♂ type. *Exp.* 28 millim.

286. **Metarctia rubripuncta,** n. sp. (Plate V. fig. 4.)

♀. Head and thorax dark fuscous brown, the basal joint of antennæ and some of the hair on thorax bright pink; abdomen with pink and fuscous-brown bands. Fore wing dark fuscous brown irrorated with pale scales; two pink points at base and a pink discocellular spot. Hind wing fuscous brown, with the inner margin pinkish; veins 4, 5 from a point. Antennæ minutely serrate.

Ab. 1. Hind wing pink.—Congo, Mus. Stockholm.

Hab. W. Africa, Gaboon, 1 ♀ type. *Exp.* 52 millim.

287. **Metarctia rufescens.** (Plate V. fig. 6.)

Metarctia rufescens, Wlk. iii. 769 (1855). Kirby, Cat. Het. p. 221.
Hexaneura maculifera, Wllgrn. Wien. Ent. Mon. iv. p. 164 (1860); Kirby, Cat. Het. p. 433.
Metarctia paremphares, Holland. Psyche, vi. p. 395 (1893).

♂. Head yellowish; antennæ and thorax dark brown; abdomen fulvous yellow with a pinkish tinge, and with fuscous segmental bands. Fore wing pinkish brown clouded with fuscous, and with a fuscous discocellular spot. Hind wing pinkish fulvous; veins 4, 5 from a point or shortly stalked.

♀ with the antennæ serrate.

Ab. 1. Fore wing much more clouded with fuscous.

Ab. 2. Hind wing also clouded with fuscous, the extremity of abdomen sometimes also fuscous.

Ab. 3. *paremphares*. Fore wing uniform fuscous; hind wing yellowish white with a pinkish tinge.—W. Africa, Natal.

Hab. W. Africa, Ogové R. (*Good*), type † *paremphares* in Coll. Holland; Natal (*Gueinzius*); Cape Colony (*Trimen*), type. *Exp.* 34–42 millim.

288. **Metarctia inconspicua.** (Plate VI. fig. 11.)

Metarctia inconspicua, Holland, Ent. xxv. (Suppl.), p. 93 (1892); id. P. U.S. Mus. xviii. p. 250, pl. 8. f. 3 (1896).

Head and thorax dark fuscous; the hair on 1st joint of antennæ and tegulæ pinkish; abdomen pinkish, with slight fuscous segmental bands and the extremity fuscous. Fore wing uniform dark fuscous brown. Hind wing ochreous white with a slight fuscous tinge; veins 4, 5 from a point. Antennæ with short branches.

Hab. E. Africa; W. Africa, Loango,; Angola, Kinsembo, 1 ♀. *Exp.*, ♂ 28, ♀ 40 millim.

*289. **Metarctia benitensis.** (Plate V. fig. 27.)

Metarctia benitensis, Holland, Psyche, vi. p. 395 (1893).

♀. Uniform dark fuscous; hind wing slightly paler.

♂. Hind wing whitish.

Hab. W. Africa, Cameroons; Benita, type † in Coll. Holland. *Exp.*, ♂ 30, ♀ 42 millim.

290. **Metarctia meteus.**

Sphinx meteus, Stoll, Pap. Exot. iv. pl. 347. B (1782); Kirby, Cat. Het. p. 220.
Decimia bicolora, Wlk. vii. 1718 (1856); Kirby, Cat. Het. p. 220.

♂. Head and thorax fulvous yellow; antennæ black; abdomen fulvous yellow banded with fuscous. Fore wing fuscous, with a fulvous fascia on costa, broad at base, narrowing to a point before apex; cilia fulvous. Hind wing fuscous, with diffused fulvous yellow at base; the cilia fulvous; veins 4, 5 from a point or shortly stalked.

Hab. Natal, type *bicolora*, Karkloof (*Marshall*); Cape Colony (*Dr. Smith*), Knysna (*Trimen*). *Exp.* 44 millim.

291. **Metarctia incensa.** (Plate VI. fig. 13.)

Anace incensa, Wlk. xxxi. 316 (1864); Kirby, Cat. Het. p. 221.

♂. Head and thorax fulvous yellow; antennæ fuscous; abdomen fulvous yellow with slight fuscous bands; wings fuscous brown, yellowish at base; cilia fulvous yellow.

Hind wing with veins 4, 5 shortly stalked on one side, from a point and with vein 5 forking before margin on the other.

Hab. ignotus. *Exp.* 54 millim. 1 ♂, type.

292. **Metarctia crassa.**

Zagaris crassa, Feld. Reis. Novara, iv. pl. 99. f. 16 (1874); Kirby, Cat. Het. p. 220.

Zagaris meteus, Wlk. v. 1096 (nec Stoll).

♂. Fulvous brown; frons, pectus, and fore legs tinged with fuscous. Fore wing with slight fuscous streaks on veins and costa Hind wing with veins 4, 5 from a point or shortly stalked.

Hab. Cape Colony (*Drège*), 3 ♂. *Exp.* 42 millim.

Genus **PSEUDAPICONOMA.**

	Type.
Pseudapiconoma, Auriv. Ent. Tidskr. ii. p. 46 (1881)	*flavimacula.*

Proboscis absent or minute; palpi short, porrect, and not reaching beyond the frons; antennæ of male serrate; build stout; tibiæ with minute terminal pairs of spurs; abdomen clothed with rough hair. Fore wing ample; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing small; vein 3 from before angle of cell; 4, 5 from angle or separate; 6, 7 shortly stalked or from angle; 7 obsolescent.

Sect. I. Hind wing with veins 4, 5 from angle of cell; 6, 7 stalked.

293. **Pseudapiconoma herona.**

Anace herona, Druce, P. Z. S. 1887, p. 669 (1888); Kirby, Cat. Het. p. 221.

♂. Very pale reddish brown; palpi, frons, neck, pectus, edge of tegulæ, and stripes on patagia and mesothorax crimson; metathorax and 1st segment of abdomen with lateral tufts of crimson hair, the rest of abdomen orange-yellow, leaving a brownish-grey dorsal fascia. Fore wing with slight crimson marks at base of costa, median nervure, and inner margin; a semihyaline bar across end of cell, leaving the rest of cell and a discocellular patch deeper red-brown. Hind wing orange-yellow.

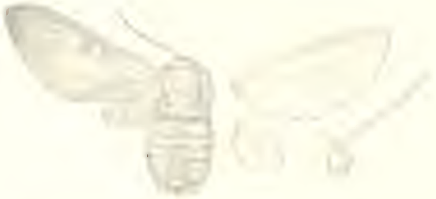

Fig. 61.—*Pseudapiconoma herona*, ♂. 1/1.

Hab. W. AFRICA, Aburi (*Carter*), 1 ♂; Mongo-ma, type ♀ in Coll. Druce. *Exp.* 50 millim.

SECT. II. Hind wing with vein 5 from above angle of cell.

A. Fore wing very dark red-brown .... *daphæna.*
B. Fore wing orange-red with scarlet and orange spots .... *flavimacula.*
C. Fore wing ochreous with two crimson fasciæ .... *ochracea.*
D. Fore wing fulvous yellow or pale brown .... *rubricincta.*
E. Fore wing white .... *glagoessa.*

294. Pseudapiconoma daphæna, n. sp.

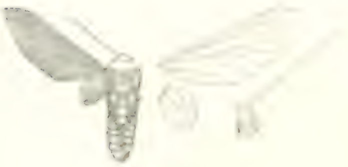

Fig. 62.
Pseudapiconoma daphæna, ♂. 1/1.

♂. Dark purplish red-brown; palpi crimson, yellow at tips; frons crimson at sides; vertex of head, antennæ, and tegulæ orange-yellow; meso- and metathorax spotted with crimson, the latter with a pair of yellow spots; coxæ and femora crimson; tibiæ and tarsi yellow; abdomen with dorsal yellow and crimson spots on first three segments, the 1st segment with crimson spots on each side of the medial spot, the other segments with crimson lateral bands, the ventral surface crimson. Fore wing irrorated with crimson, and with two crimson points at base. Hind wing fuscous brown.

Hab. R. NIGER, Asaba (*Crosse*), 1 ♂ type; W. AFRICA, Loango. *Exp.* 38 millim.

295. Pseudapiconoma flavimacula. (Plate VI. fig. 12.)

Balacra flavimacula, Wlk. vii. 1722 (1856); Kirby, Cat. Het. p. 221.
Pseudapiconoma testacea, Auriv. Ent. Tidskr. ii. p. 46, f. 1 (1881); Kirby, Cat. Het. p. 222.
Balacra hæmalea, Holland, Psyche, vi. p. 397 (1893).

♂. Head, thorax, and abdomen orange-red, the last with traces of segmental black lines and dorsal series of blue-grey spots; antennæ fuscous with a blue tinge except at base. Fore wing red suffused with brown; a crimson streak on subcostal nervure and some crimson at base of inner margin; crimson spots in and below end of cell, beyond the cell above and below vein 6, varying much in size and often with more or less developed yellow centres; the interspaces of terminal area red. Hind wing yellow tinged with crimson.

♀. Abdomen with the segmental black lines and dorsal series of blue-grey spots well developed; antennæ minutely serrate.

In one specimen veins 4, 5 of fore wing are separate instead of from a point.

Ab. 1. *hæmalea*: hind wing crimson.—CAMEROONS, Mus. Stockholm; W. AFRICA, Ogové R. and Bule Country, type † in Coll. Holland.

Hab. ASHANTI (*Wesleyan Mission*), 1 ♂ type; R. NIGER, Onitsha (*Wesleyan Mission*), 1 ♂; CAMEROONS; GABOON, type † *testacea* in Mus. Stockholm. *Exp.*, ♂ 46, ♀ 60 millim.

*296. Pseudapiconoma ochracea.

Balacra ochracea, Wlk. Proc. N. H. Soc. Glasgow, i. p. 331 (1869); Kirby, Cat. Het. p. 221.

♂. Ochreous; head and legs crimson; antennæ black; tarsi blackish. Fore wing with two divergent crimson fasciæ from base.

Hab. CONGO. *Exp.* 50 millim.

This species is unknown to me.

297. Pseudapiconoma rubricincta. (Plate VI. fig. 15.)

Balacra rubricincta, Holland, Psyche, vi. p. 396 (1893).

♂. Head crimson; a white band between antennæ, which are white above, blackish below; thorax white with five crimson bands, the patagia striped with crimson; pectus crimson; legs striped with white; abdomen white, with crimson bands on each segment, ventral surface white with paired crimson bars except towards extremity. Fore wing fulvous yellow, the costa white; a white spot below middle of cell; the area between veins 2 and 6 beyond the cell thinly scaled. Hind wing crimson, thinly scaled towards base; cilia of both wings white.

Ab. 1. Fore wing pale brown; a very worn specimen apparently conspecific.—Ashanti.

Hab. W. AFRICA, Bule Country, type † in Coll. Holland; ASHANTI. *Exp.* 44 millim.

298. Pseudapiconoma glagoessa. (Plate VI. fig. 14.)

Balacra glagoessa, Holland, Psyche, vi. p. 396 (1893).

♂. Pure white; antennæ blackish; palpi except at tips, vertex of head, patches behind eyes, and stripes on legs crimson. Fore wing with crimson point at base of costa; the end of cell and the interspaces between veins 2 and 8 semihyaline.

Hab. W. Africa, Ogové R., Bule Country, 2 ♂. *Exp.* 50 millim. Type † in Coll. Holland.

Sect. III. Hind wing with vein 5 from middle of discocellulars.

*299. Pseudapiconoma elegans.

Balacra elegans, Auriv. Ent. Tidskr. xiii. p. 200 (1892).
Balacra damalis, Holland, Psyche, vi. p. 397 (1893).

♂. Head red; antennæ fuscous, white above; tegulæ white, narrowly edged with crimson; thorax pale brown; pectus and legs white with patches of crimson; abdomen bluish grey-brown, with segmental black bands somewhat incomplete dorsally; subdorsal crimson patches on basal segments; lateral orange fasciæ; the ventral surface white, with paired crimson semicircular patches except towards extremity. Fore wing pale fawn-colour, with crimson point at base; a hyaline spot in end of cell, and four spots beyond the cell between veins 2 and 6. Hind wing orange-yellow.

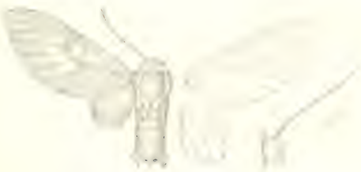

Fig. 63.
Pseudapiconoma elegans, ♂. ½.

Hab. Cameroons. *Exp.* 42 millim. Type † in Mus. Stockholm; type † *damalis* in Coll. Holland.

Genus MELISA.

	Type.
Melisa, Wlk. i. 264 (1854)	*diptera*.

Proboscis well developed; palpi short, porrect, hairy, and not reaching beyond the frons, which is hairy; antennæ of male ciliated; tibiæ with minute terminal pairs of spurs; abdomen of male with long pointed tuft, of female with the anal segment much enlarged. Fore wing very ample; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell; male with the middle of inner margin much distorted; vein 2 bent straight down to it, 3 also nearly straight down, the tornus lobed, turned over on underside and concealing a patch of androconia. Hind wing small; vein 3 from well before angle of cell; 4, 5 from angle; 6, 7 from upper angle; of male extremely small; the costal area folded over and enclosing a tuft of scales.

300. Melisa diptera.

Euchromia diptera, Wlk. i. 265 (1854); Butl. Ill. Het. i. p. 19, pl. 9. f. 10; Kirby, Cat. Het. p. 110.
Balacra croceipes, Auriv. Ent. Tidskr. xiii. p. 200 (1892).
Melisa grandis, Holland, Psyche, vi. p. 394 (1893).

♂. Black; legs orange-red; abdomen with lateral series of ochreous spots except on basal segments; ventral bands on first three segments orange-red, on terminal segments yellow, small blue-black lateral spots at the junction of segments. Fore wing shot with brilliant purple; hind wing invisible from above.

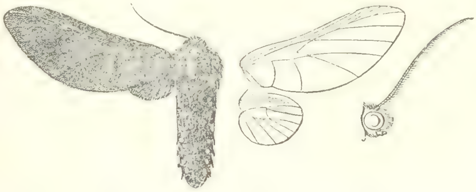

Fig. 64.—*Melisa diptera*, ♂. 1/1.

♀. Abdomen with the lateral ochreous spots larger; the anal segments much dilated and orange-red.

Hab. Old Calabar; Ashanti; Gaboon, 1 ♂; Congo (*Curror*), 1 ♂ type. *Exp.*, ♂ 52, ♀ 62 millim. Type *grandis* in Coll. Holland.

Genus **PHÆOSPHECIA**, nov.

Type, *P. opaca.*

Proboscis fully developed; palpi upturned, reaching vertex of head, the 1st joint with very long scales in front, the 2nd angled at base; antennæ bipectinate, with very short branches dilated at extremity, the medial part of shaft clothed with rough scales above, the terminal part serrate; tibiæ with the spurs moderate; abdomen with large lateral tubercles on basal segment; the 2nd segment strongly constricted, then suddenly expanding, tapering to a point at extremity. Fore wing long and narrow, the costa arched beyond middle; vein 2 from long before angle of cell; 3, 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 shortly stalked. Hind wing with the upper discocellular oblique; veins 2 and 4 on a long stalk; 3, 5 absent; 6, 7 from upper angle.

*301. Phæosphecia opaca.

Myrmecopsis opaca, Wlk. vii. 1620 (1856); Kirby, Cat. Het. p. 135.
Pseudosphex vespa, Herr.-Schäff. Aussereur. Schmett. f. 426 (1856); Kirby, Cat. Het. p. 129.

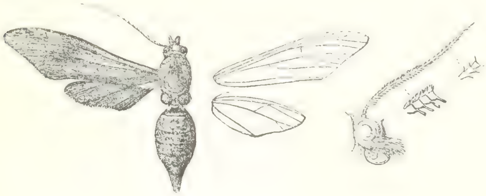

Fig. 65.—*Phæosphecia opaca*, ♂. 1/1.

♂. Metallic blue-black; shaft of antennæ whitish above, except the tufted medial portion; abdomen with the 2nd segment whitish at sides and below. Hind wing with small triangular hyaline patch below base of cell.

Hab. Amazons, Para. *Exp.* 48 millim. Type † in Mus. Oxon.

Genus ORCYNIA.

	Type.
Orcynia, Wlk. i. 274 (1854).	*calcarata*.

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head and moderately scaled, the 3rd short and blunt; antennæ bipectinate, the branches short, dilated at extremity, and ending in a bristle; tibiæ with the spurs well developed. Fore wing very long and narrow; vein 3 from close to angle of cell; 4, 5 separate at origin, 4 curved and approximated to 5 for some distance; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the lower part of cell rather short; veins 2 and 4 on a long stalk; 3 and 5 absent; 6, 7 stalked.

302. Orcynia calcarata.

Euchromia calcarata, Wlk. i. 274 (1854); Butl. Ill. Het. i. p. 26, pl. 9. f. 11; Kirby, Cat. Het. p. 131.

♂. Head, thorax, and abdomen black; antennæ fulvous; palpi in front, frons, vertex of head, patches on tegulæ, patagia, meso-meta- and sides of thorax, and on coxæ bright yellow; hind tarsi fulvous at extremities; abdomen with round pale yellow subdorsal spots on 1st segment, followed by larger elliptical spots on next two segments; yellow sublateral spots on first three segments. Wings fulvous suffused with fuscous.

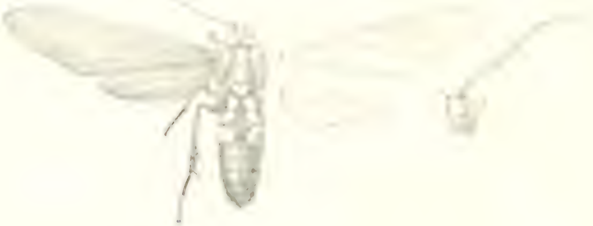

Fig. 66.—*Orcynia calcarata*, ♂. 1/1.

Hab. Amazons, Santarem (*Bates*), 1 ♂ type. *Exp.* 62 millim.

Genus PSEUDOSPHEX.

	Type.
Pseudosphex, Hübn. Zutr. i. p. 13 (1827), & Verz. p. 127 (1827) ...	*polistes*.
Myrmecopsis, Newm. Zool. viii. App. p. cxxii (1850)	*polistes*.
Sphecopsis, Feld. Reis. Nov. p. 9 (1874), non descr.	*hyalozona*.

Proboscis well developed; palpi upturned, reaching vertex of head, the 1st joint fringed with long hair, the 3rd acuminate; antennæ bipectinate, with short branches dilated at extremity and ending in a bristle, the shaft dilated at middle; fore femora dilated; mid and hind tibiæ with the spurs moderate; abdomen with slight lateral tubercles on 1st segment, the 2nd segment with long slender peduncle; male with the 2nd and 3rd segments covered by a ventral valve. Fore wing with vein 2 curved; 3, 4, 5 from angle of cell; 4 curved and approximated to 5; 6 from upper angle; 7, 8, 9, 10 stalked, 7 given off nearer the apex than 9; 11 from cell. Hind wing with the lower part of cell rather short, the upper discocellular oblique; veins 2 and 4 strongly stalked; 3 and 5 absent; 6, 7 from upper angle.

SECT. I. Fore wing with vein 2 from angle of cell.

303. Pseudosphex strigosa.

Amycles strigosa, Druce, Biol. Centr.-Am., Het. i. p. 46, pl. 8. f. 3 (1884); Kirby, Cat. Het. p. 127.

Black-brown. Fore wing with slight hyaline streak below base of cell; the black-brown shading off to reddish brown towards the apical white patch, which extends down to vein 2 and has a hyaline streak between veins 3, 4 running up to angle of cell. Hind wing with hyaline streak below base of cell and semihyaline patch beyond lower angle of cell above vein 4.

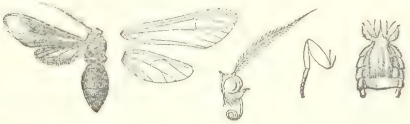

Fig. 67.—*Pseudosphex strigosa*, ♂. 1/1.

Hab. MEXICO, Tabasco (*H. H. Smith*), Jalisco (*Schumann*), Yucatan (*Gaumer*); GUATEMALA, Vera Paz (*Champion*), type Godman-Salvin Coll. *Exp.* 24 millim.

SECT. II. Fore wing with vein 2 from before angle of cell.

- A. Abdomen pale yellow, with broad black bands .... *laticincta.*
- B. Abdomen fulvous yellow, without bands .... *polistes.*
- C. Abdomen black.
  - *a.* Fore wing clouded with pale brown, with hyaline fasciæ in and below cell .... *ichneumonea.*
  - *b.* Fore wing fuscous suffused with blue, with hyaline fascia below cell........... .... *hyalozona.*

304. Pseudosphex laticincta, n. sp. (Plate VI. fig. 8.)

Sphecosoma fasciolatum, Druce, Biol. Centr.-Am., Het. i. p. 54 (part), nec Butl.

♂. Head, thorax, and abdomen yellow; palpi banded with black; frons whitish; antennæ black towards base and with black band between their bases; tegulæ edged with black; patagia and thorax striped with black; abdomen with dorsal stripes on 1st segment and bands on lateral tubercles; the other segments with black bands expanding to slight points behind on dorsum; wings hyaline, the veins and margins narrowly fuscous and fulvous. Fore wing with the costal area clouded with fulvous.

Hab. GUATEMALA, Vera Paz, 1 ♂ (*Champion*), type Godman-Salvin Coll. *Exp.* 26 millim.

305. Pseudosphex polistes.

Pseudosphex polistes, Hübn. Zutr. Ex. Schmett. i. p. 12, ff. 39, 40 (1827); Druce, Biol. Centr.-Am., Het. i. p. 53; Kirby, Cat. Het. p. 135.
Myrmecopsis eumenides, Newm. Zool. viii. App. p. cxxii (1850).

♂. Head and thorax yellow; vertex of head black; antennæ

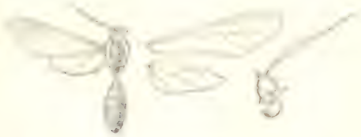

Fig. 68.—*Pseudosphex polistes*, ♂. ½.

fulvous brown; tegulæ spotted with black; patagia edged with black; mesothorax with two black stripes, metathorax with one; abdomen with two black stripes on medial part of 1st segment, the other segments fulvous brown; the ventral valve more or less prominently fringed with white; wings hyaline, the veins and margins narrowly brown. Fore wing with the costal area from just before end of cell to apex clouded with brown.

Hab. Mexico, Guerrero (*H. H. Smith*); Guatemala, Vera Paz (*Champion*), Godman-Salvin Coll.; Amazons, Ega (*Bates*), Para (*Austen*). *Exp.* 30–32 millim.

306. Pseudosphex ichneumonea.

Pseudosphex ichneumonea, Herr.-Schäff. Aussereur. Schmett. f. 225 (1854); Kirby, Cat. Het. p. 155.

Pseudosphex polyboides, Burm. Descr. Rep. Arg. v. p. 372 (1878); Kirby, Cat. Het. p. 155.

Myrmecopsis crabronis, Druce, Biol. Centr.-Am., Het. i. p. 54, pl. 8. f. 9 (1884); Kirby, Cat. Het. p. 155.

Black; antennæ black or fulvous brown; coxæ of male white; abdomen with the ventral valve, or in female the pedunculated segment, fringed with white; wings brownish hyaline, the veins and margins narrowly brown. Fore wing with the costal and inner areas to beyond middle clouded with black.

Ab. 1. *crabronis*: fore wing with the costal and inner areas slightly clouded with brownish.

Hab. Guatemala; Panama, Chiriqui (*Champion*), type *crabronis* ♀ Godman-Salvin Coll.; Brazil, type † in Coll. Staudinger; Argentina. *Exp.*, ♂ 34, ♀ 38 millim.

*307. Pseudosphex hyalozona.

Sphecopsis hyalozona, Feld. Reis. Nov. pl. 102. f. 29 (1874); Kirby, Cat. Het. p. 134.

♀. Head, thorax, and abdomen black; frons grey; abdomen with some white on ventral surface of 1st segment, and the first two segments narrowly edged with white. Fore wing black-brown shot with blue to near termen; a hyaline fascia from base below the cell and between veins 2 and 4 extending to near termen. Hind wing hyaline, the veins and margins narrowly black, the costal area suffused with fuscous.

Hab. Colombia, Bogota, 1 ♀ type† in Coll. Rothschild. *Exp.* 38 millim.

Genus SPHECOSOMA.

	Type.
Sphecosoma, Butl. Journ. Linn. Soc., Zool. xii. p. 381 (1876).....	*cognatum.*

Proboscis well developed; palpi upturned, reaching vertex of head, the 2nd joint fringed with hair, the 3rd acuminate; frons hairy; antennæ bipectinate, the branches dilated at extremity, the shaft dilated at middle, especially in female; tibiæ with the spurs moderate; abdomen with the 2nd segment pedunculated, the 1st with bladder-like lateral tubercles. Fore wing with vein 3 from before angle of cell; 4, 5 from angle or separate; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing usually with the lower part of cell extremely short, the discocellulars angled just above median nervure; veins 2 and 4 on a long stalk; 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Abdomen with long and slender peduncle to 2nd segment; the 1st segment with two large bladder-like ventral tubercles, no valve covering the segments beyond the peduncle.

308. Sphecosoma angustatum.

Sphecosoma angustata, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 634, pl. 8. f. 2 (1877); Kirby, Cat. Het. p. 135.
Sphecosoma testaceum, Druce, Biol. Centr.-Am., Het. i. p. 54, pl. 6. f. 27 (nec Wlk.).

Head and thorax yellow; palpi whitish and black at sides; antennæ with the branches blackish; vertex of head, neck, and tegulæ banded with black; tegulæ, thorax, and 1st segment of abdomen striped with black; abdomen fulvous yellow beyond the peduncle; wings hyaline, the veins and margins narrowly dark. Fore wing with slight fulvous-brown streaks on costa and inner margin.

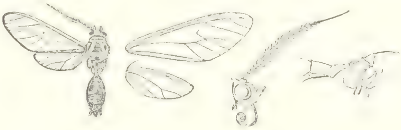

Fig. 69.—*Sphecosoma angustatum*, ♂. $\frac{1}{1}$.

Hab. Guatemala, Vera Paz; Panama, Chiriqui, 4 ♂ 2 ♀ (*Champion*), type Godman-Salvin Coll.; Surinam, type † in Coll. Staudinger. *Exp.* 24 millim.

Sect. II. Abdomen with shorter and stouter peduncle to 2nd segment, the 1st segment without ventral bladder-like tubercles; male with a ventral curved valve covering 2nd and 3rd segments.

A. Fore wing with veins 4, 5 from a point.
  a. Abdomen orange, with narrow blue-black bands .... *arctatum.*
  b. Abdomen pale yellow, with broad black bands.
    a¹. Fore wing without apical black patch..................... *deceptrix.*
    b¹. Fore wing with apical black patch .... *simile.*
  c. Abdomen fulvous yellow, without bands..................... *testaceum.*

309. Sphecosoma arctatum.

Pseudosphex arctata, Wlk. xxxi. 95 (1864); Kirby, Cat. Het. p. 135.

♂. Head and thorax yellow; vertex of head blue-black; tegulæ and thorax banded with black, a blue-black patch on metathorax; patagia black-edged; abdomen with black stripe on 1st segment and spots on the lateral lobes; orange beyond the peduncle and with blue-black segmental bands; wings hyaline, the veins and margins narrowly black. Fore wing with slight yellow streak below costa and short streak above inner margin.

Fig. 70.—*Sphecosoma arctatum*, ♂. 1/1.

Hab. Amazons, Ega, 1 ♂ (*Bates*), type. *Exp.* 28 millim.

310. Sphecosoma deceptrix, n. sp.

Sphecosoma fasciatum, Druce, Biol. Centr.-Am., Het. i. p. 54 (part), pl. 6. f. 26 (nec Butl.).

Head whitish, with black band between antennæ; palpi and legs orange-yellow; antennæ black towards base; thorax and abdomen pale yellow; tegulæ edged with black; patagia and thorax striped with black; abdomen with black dorsal stripe on first two segments and spots on the lateral tubercles, the other segments broadly banded with black; wings hyaline, the veins and margins narrowly dark. Fore wing with the costa and inner margin and veins to end of cell orange-yellow.

Hab. Guatemala, Vera Paz, type; Panama, Bagaba (*Champion*), Godman-Salvin Coll. *Exp.* 22 millim.

*311. Sphecosoma simile. (Plate VI. fig. 2.)

Sphecosoma simile, Schaus, P. Z. S. 1894, p. 225.

♂. Head and thorax yellow; antennæ black and yellow; vertex of head with black spot; tegulæ and patagia edged with black; thorax marked with black; mid tarsi striped with black; abdomen yellow, the 1st segment with pair of dorsal black points and black bars on the lateral tubercles, the 3rd and following segments dorsally banded with black and blue, the black on 4th segment extending on to ventral surface at end of valve; wings hyaline, the veins yellow and black, the margins narrowly black. Fore wing with apical black patch.

Hab. Venezuela, Aroa. *Exp.* 28 millim. Type † in Coll. Schaus.

312. Sphecosoma testaceum. (Plate VI. fig. 22.)

Glaucopis testacea, Wlk. i. 196 (1854); Kirby, Cat. Het. p. 135.

♂. Head blackish; palpi yellow; antennæ yellow, with blackish patch on medial part of shaft; thorax yellow; tegulæ edged with black; patagia and metathorax striped with black; abdomen fulvous yellow; wings hyaline, the veins and margins narrowly dark. Fore wing with slight fulvous-yellow streaks on costa and inner margin.

Hab. Br. Guiana, Demerara, type; Amazons, Para (*Austen*), 2 ♂. *Exp.* 28 millim.

B. Fore wing with veins 4, 5 separate at origin.
  a. Fore wing of male with thick fringe of long hair on vein 1 below; hind wing with fringe of hair on costa above; both sexes with the cell long; veins 2 and 4 from angle, 3 from 2 near margin; 5 obsolete.

313. Sphecosoma abnormis, n. sp.

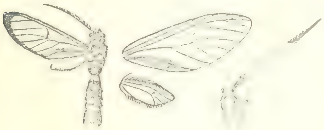

Fig. 71.
Sphecosoma abnormis, ♂. 1/1.

Head and thorax orange; antennæ blackish at base and extremities; vertex of head black and leaden blue; tegulæ and patagia black edged with orange; thorax striped with black; abdomen fulvous, the first two segments blackish above, the 1st with dorsal orange spot, the terminal segments with obscure silvery blue dorsal bands; wings hyaline, the veins and margins narrowly black. Fore wing with slight subcostal orange streak, terminal band expanding towards apex.

Hab. Lower Amazons, Massauary, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 30 millim.

b. Fore wing of male without fringe of hair on vein 1; hind wing with the lower part of cell very short, veins 2 and 4 on a long stalk.
  a^1. Thorax black and yellow.
    a^2. Abdomen banded yellow and black.
      a^3. Antennæ with the medial part orange .... *cognatum.*
      b^3. Antennæ wholly black.................................. *melissa.*
    b^2. Abdomen black beyond the peduncle.
      a^3. Abdomen with three black streaks on 1st segment; fore wing without red streak on costa .... *surrentum.*
      b^3. Abdomen with black bands on basal segments; fore wing with red streak on medial part of costa .... *ecuadorum.*
  b^1. Thorax wholly black; abdomen with the terminal segments black, with one or two yellow bands ...... *melanotum.*

314. Sphecosoma cognatum.

Pseudosphex cognata, Wlk. vii. 1619 (1856); Kirby, Cat. Het. p. 155.
Sphecosoma fasciolatum, Butl. Journ. Linn. Soc., Zool. xii. p. 381 (1876); Druce, Biol. Centr.-Am., Het. i. p. 54 (part); Kirby, Cat. Het. p. 135.

Head, thorax, and abdomen pale yellow; palpi and legs orange-yellow; frons white; antennæ black towards base; tegulæ edged with black; patagia and thorax striped with black; legs banded with black; abdomen with black dorsal and subdorsal stripes on first two segments, the other segments banded with black; wings hyaline, the veins and margins narrowly dark. Fore wing with slight yellow streaks below costa and above base of inner margin.

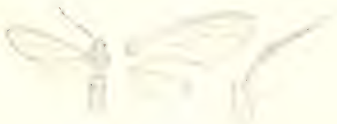

Fig. 72.—*Sphecosoma cognatum*, ♂. 1/1.

Hab. Mexico, Jalapa (*Trujillo*), ♀ (Godman-Salvin Coll.; Colombia, Santa Martha, 1 ♂ (*Bouchard*), type *fasciolatum*. Amazons, type† *cognatum* in Mus. Oxon. *Exp.* 26 millim.

315. Sphecosoma melissa. (Plate VI. fig. 4.)

Sphecosoma melissa, Schaus, J. N. Y. Ent. Soc. iv. p. 131 (1896).

Head black; palpi and cheeks yellow; frons and a band on vertex of head white; tegulæ yellow; thorax striped yellow and black; pectus and legs yellow marked with black; abdomen black, with greyish-yellow bands, the 1st segment with two dorsal yellow spots; wings yellowish hyaline, the veins and margins narrowly black. Fore wing with slight orange streak below base of costa and two slight streaks above base of inner margin.

Hab. Brazil, Sta. Catharina, 2 ♂, São Paulo; type † in Coll. Schaus. *Exp.* 26 millim.

316. Sphecosoma surrentum.

Sphecosoma surrentum, Druce, P. Z. S. 1883, p. 375, pl. 39. f. 8; Kirby, Cat. Het. p. 135.

♂. Head and thorax orange and black; abdomen black, the 1st segment orange, with three dorsal black stripes meeting posteriorly, the 2nd segment with some orange at sides; the ventral valve yellowish white; wings hyaline, the veins and margins narrowly black.

Hab. Bolivia, Puerto S. Rosa, 1 ♂ (*Garlepp*). *Exp.* 26 millim. Type † in Coll. Druce.

*317. Sphecosoma ecuadorum. (Plate VI. fig. 24.)

Sphecosoma ecuadora, Druce, P. Z. S. 1883, p. 376; Kirby, Cat. Het. p. 135.

♂. Head and thorax black and orange; palpi yellow, white in front; abdomen black, the first three segments banded orange and black; the ventral valve yellow; wings hyaline, the veins and margins narrowly black. Fore wing with crimson streak on medial part of costa; some black at base of inner margin; the terminal line expanding somewhat towards apex.

Hab. Ecuador, Sarayacu (*Buckley*); type † in Coll. Druce. *Exp.* 24 millim.

318. **Sphecosoma melanotum**, n. sp. (Plate VII. fig. 4.)

♂. Head, thorax, and abdomen black; head with some white hair; legs yellow; abdomen with the constricted 2nd segment yellow, the 3rd segment edged with yellow; the ventral valve yellow; wings hyaline, the veins and margins narrowly black. Fore wing with subcostal yellow streak; the inner margin and costa of hind wing yellowish.

♀. Abdomen with the 3rd and 4th segments edged with yellow.

Hab. Bolivia, Corvico (*Garlepp*), 1 ♂ type; ♀ in Coll. Staudinger. *Exp.* 26 millim.

Genus **BOMBOPSYCHE**, nov.

Type, *B. ruatana.*

Proboscis fully developed; palpi upturned, not reaching vertex of head, the 1st joint clothed with long hair, the 3rd acuminate; antennæ bipectinate, with short branches dilated at extremity, the apical part serrate; tibiæ with the spurs moderate; abdomen with lateral tubercles on 1st segment, the 2nd segment strongly constricted, then rather abruptly dilated, and tapering to a point at extremity; male with ventral valve covering basal segment. Fore wing narrow; veins 2 and 3 from a point before angle of cell; 5 from above angle; 6 from below upper angle; 7, 8, 9, 10 stalked, 7 given off nearer the apex than 9; 11 from cell. Hind wing with veins 2 and 4 on a long stalk; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle.

319. **Bombopsyche ruatana.**

Antichloris ruatana, Druce, A. M. N. H. (6) ii. p. 241 (1888); Biol. Centr.-Am., Het. ii. p. 351, pl. 72. f. 14

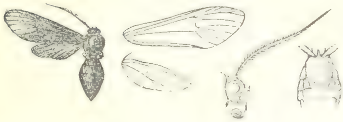

Fig. 73.—*Bombopsyche ruatana*, ♂. $\frac{1}{1}$.

♂. Black. Fore wing with the terminal area from costa to vein 3 paler and rather thinly scaled. Hind wing with hyaline patch below base of cell.

Hab. Honduras, Ruatan I. (*Gaumer*), 2 ♂ type, Godman-Salvin Coll. *Exp.* 24 millim.

Genus **POMPILOPSIS**, nov.

Type, *P. tarsalis.*

Proboscis well developed; palpi upturned, slender and hardly reaching vertex of head, the 1st joint fringed with long hair, the 3rd short; antennæ bipectinate, with moderate branches, short in female, dilated at extremity and ending in a bristle, the apical part serrate; tibiæ with the spurs moderate; abdomen with slight lateral tubercles to 1st two segments, the 3rd segment with slender peduncle, then suddenly expanding and tapering to apex. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked, 9 given off close to the apex; 11 from cell. Hind wing with the lower part of cell very short, the discocellulars very short; veins 2 and 4 stalked; 3 and 5 absent; 6, 7 from upper angle.

320. Pompilopsis tarsalis.

Glaucopis tarsalis, Wlk. i. 196 (1854), ♂; Butl. Ill. Het. i. p. 28, pl. 13. f. 1; Kirby, Cat. Het. p. 134.
Glaucopis semihyalina, Wlk. i. 197 (1854), ♀; Butl. Ill. Het. i. pl. 13. f. 9; Druce, Biol. Centr.-Am., Het. i. p. 53; Kirby, Cat. Het. p. 134.
Pseudosphex vespiformis, Herr.-Schaff. Aussereur. Schmett. i. f. 425 (1855).

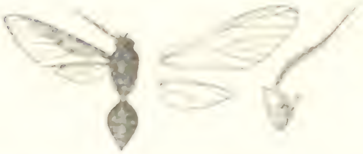

Fig. 74.—*Pompilopsis tarsalis*, ♂. 1/1.

♂. Blue-black; frons grey at edges; antennæ with the shaft whitish above; tarsi greyish; abdomen with the pedunculated segment ventrally whitish; wings hyaline, the veins and margins narrowly black. Fore wing with a broad hyaline brown band from inner margin before middle to costa and along it to apex, with a brilliant metallic-blue discocellular patch on it, and the costa streaked with blue; a blue and fuscous patch at tornus. Hind wing hyaline brown except at base; a brilliant metallic-blue, irregular, terminal band varying in width.

♀. Fore wing with the hyaline brown band not extending to apex; no patch at tornus; hind wing with the area between lower angle of cell and apex clouded with brown, no terminal blue band.

Hab. Mexico, Tabasco (*H. H. Smith*); Guatemala, Vera Paz (*Champion*), Godman-Salvin Coll.; Amazons, Para (*Bates*), types. *Exp.* 44 millim.

Genus POMPILIODES, nov.

Type, *P. aliena*, Wlk.

Proboscis well developed; palpi upturned, slender, and reaching vertex of head; antennæ with the shaft dilated at middle; tibiæ with the spurs short; abdomen with the 2nd segment somewhat constricted, male with a ventral valve covering basal segments. Fore wing long and narrow; veins 3, 4, 5 from angle, or 3 before angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell rather short; veins 2, 3, 4 stalked from angle, 3 given off from 2 close to the margin; 5 obsolescent; 6, 7 stalked or from cell.

Sect. I. Antennæ of male bipectinate, with short branches dilated at extremity.

321. Pompiliodes albomarginata.

Amycles albomarginata, Druce, Biol. Centr.-Am., Het. i. p. 45, pl. 7. f. 26 (1884); Kirby, Cat. Het. p. 127.

♂. Black-brown; abdomen with white lateral spots on ventral valve. Fore wing with the black-brown shading to reddish brown

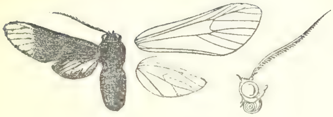

Fig. 75.
Pompiliodes albomarginata, ♂. $\frac{1}{1}$.

at three-fourths of wing before the white apical area, which extends almost down to tornus. Hind wing hyaline, the veins and margins black; the terminal black band wide at costa, narrowing to vein 2, then expanding and dentate on inner side.

Hab. Panama, Chiriqui (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 30 millim.

Sect. II. Antennæ of male serrate and ciliated.

A. Fore wing with white band from costa before apex to termen above tornus	*aliena.*
B. Fore wing with diffused white patch at middle of terminal area	*postica.*
C. Fore wing with hardly a trace of pale band or patch	*tenebrosa.*

322. Pompiliodes aliena.

Euchromia aliena, Wlk. i. 241 (1854); Kirby, Cat. Het. p. 127.
Amycles ? flavifascia, Herr.-Schäff. Aussereur. Schmett. f. 231 (1854); Druce, Biol. Centr.-Am., Het. i. p. 45.

♂. Black-brown; antennæ white at tips; fore coxæ whitish. Fore wing with the inner area reddish brown; the black-brown area shading off to reddish brown before the subapical white band, which ends on termen at vein 3; the apex greyish. Hind wing greyish fuscous-brown.

The specimen from Guatemala has the white band considerably broader than in specimens from the Amazons.

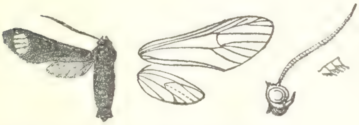

Fig. 76.—*Pompiliodes aliena*, ♂. $\frac{1}{1}$.

Hab. Guatemala, Vera Paz (*Champion*), 1 ♂, Godman-Salvin Coll.; Amazons, Manaos (*Austen*), Para, Ega (*Bates*), type. *Exp.* 26 millim.

323. Pompiliodes postica. (Plate VI. fig. 6.)

Pampa postica, Wlk. vii. 1630 (1856); Druce, Biol. Centr.-Am., Het. i. p. 45; Kirby, Cat. Het. p. 126.

♂. Black-brown; antennæ white towards tips; fore coxæ whitish on inner side. Fore wing with the inner area reddish brown; the black-brown area shading off at two-thirds of wing to reddish brown, becoming greyish towards apex; an ill-defined white patch on terminal area between veins 3 and 5. Hind wing greyish fuscous.

Hab. Panama (*Champion*), 1 ♂, Godman-Salvin Coll.; Amazons, Santarem (*Bates*), 1 ♂ type. *Exp.* 24 millim.

324. Pompiliodes tenebrosa. (Plate VI. fig. 26.)

Euchromia tenebrosa, Wlk. i. 240 (1854); Kirby, Cat. Het. p. 126.

♂. Black-brown; antennæ white at tips. Fore wing with the apical one-third paler greyish brown. Hind wing paler greyish brown.

Hab. Amazons, Para (*Bates*), 1 ♂ type. *Exp.* 28 millim.

Genus PARAMYA, nov.

Type, *P. intersecta.*

Palpi upturned, the 3rd joint well developed, acuminate, and reaching above vertex of head; mid and hind tibiæ with short terminal pairs of spurs. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from or below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 2 and 4 stalked; 5 from middle of discocellulars; 6, 7 on a long stalk; both wings with a veinlet in the cell.

Sect. I. Hind wing with vein 3 absent; antennæ of female with extremely short branches or serrate.

A. Wings with the interspaces hyaline .... *intersecta.*
B. Wings bronze-green with the veins black .... *ænetus.*

325. Paramya intersecta, n. sp.

♀. Black-brown. Fore wing hyaline; the veins black; the costal area black; the inner area black to the submedian fold; black streaks in discal fold and between the veins of terminal area from apex diminishing to vein 3. Hind wing with the costal area semihyaline; the inner area suffused with black.

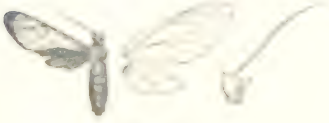

Fig. 77.
Paramya intersecta, ♀ 1.

Hab. Amazons, Para, 1 ♀ (*Bates*), type. *Exp.* 26 millim.

*326. Paramya ænetus. (Plate VI. fig. 10.)

(*Chloropsinus ænetus*, Schaus, J. N. York Ent. Soc. iv. p. 131 (1896).

♀. Antennæ serrate; head, thorax, and abdomen blue-black; wings bronze-green with the veins black; hind wing with slight semihyaline streak below median nervure.

Hab. Brazil, Castro Paraná, type † in Coll. Schaus. *Exp.* 36 millim.

Sect. II. Hind wing with vein 3 from 2 near termen; antennæ of male with long branches; fore wing with vein 6 from below angle.

A. Head and extremity of abdomen yellow .... *flavia.*
B. Head black.
  a. Abdomen orange, the terminal segments black .... *picta.*
  b. Abdomen black, with golden-green fasciæ .... *chrysonota.*

*327. Paramya flavia.

Paramya flavia, Schaus, J. N. Y. Ent. Soc. vi. p. 139 (1898).

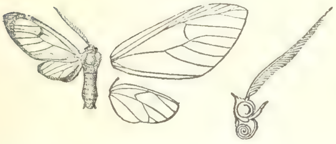

Fig. 78.—*Paramya flavia*, ♂. 1/1.

♂. Head, thorax, and abdomen orange-yellow; antennæ black, white at tips; palpi and legs tinged with fuscous; abdomen with the terminal segments black below; wings hyaline, the veins and margins narrowly fuscous. Fore wing with orange patch on basal inner area, the terminal band expanding towards apex. Hind wing with orange patch at base of inner area, the rest of which is fuscous.

Hab. BRAZIL, Castro Paraná, type † in Coll. Schaus. *Exp.* 28 millim.

*328. Paramya picta. (Plate VI. fig. 9.)

Paramya picta, Druce, A. M. N. H. (7) i. p. 405 (1898).

♂. Head black; thorax and abdomen orange; extremity of femora, tibiæ, and tarsi black; abdomen with the last four segments black; slight white marks at sides, and the ventral surface white. Fore wing orange, with wedge-shaped hyaline patch in cell, a fascia below the cell, and patches in interspaces beyond the cell; a large black discoidal lunule, with black streaks on costa above it and veins below it, and patch on inner margin; the apical area fuscous, tinged with grey. Hind wing orange; the apical area black.

Hab. CAYENNE, 1 ♂ type † in Mus. Oxon. *Exp.* 28 millim.

329. Paramya chrysonota, n. sp. (Plate VII. fig. 3.)

♂. Black; antennæ white at tips; frons and tegulæ with blue patches; meso- and metathorax with bluish-white patches; abdomen with golden-green dorsal, lateral, and ventral fasciæ. Fore wing with elongate hyaline spot below middle of cell; elongate spots above veins 3 and 4, and more or less prominent specks above and below 6. Hind wing with hyaline spot below base of cell; a small spot above vein 2, and elongate spots above and below discal fold.

Hab. AMAZONS, Itaituba, 1 ♂ type. *Exp.* 34 millim.

Genus HOMŒOCERA.

	Type.
Homœocera, Feld. Reis. Nov. pl. 102. f. 26 (1874), non descr.	*crassa.*

Proboscis well developed; palpi usually porrect, reaching beyond the frons and fringed with hair; antennæ with the medial part thickened; head, thorax, and 1st segment of abdomen clothed with thick woolly pile; tibiæ with the spurs moderate; abdomen of male with ventral valve covering basal segments. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked, 11 from cell. Hind wing with the lower part of cell very short; veins 2 and 4 on a long stalk; 3 and 5 absent, or 3 from 2; 6, 7 from upper angle.

Sect. I. Antennæ of male bipectinate, the medial part of shaft with thick fringe of hair on upperside; palpi upturned; hind wing with vein 3 from 2 before margin; fore wing with vein 5 from above angle of cell.

*330. Homœocera lophocera.

Homœocera lophocera, Druce, A. M. N. H. (7) i. p. 402 (1898).

♂. Head, thorax, and abdomen black; base of patagia and shoulders with white patches; tegulæ and abdomen at sides with blue points, the latter with the last two and part of third segments scarlet; the last four segments scarlet below, and the two segments before them with blue and white sublateral spots; wings hyaline, the veins, and margins broadly, black. Fore wing with blue point at base; the fasciæ on costa and inner margin expanding towards base; an oblique band from costa across discocellulars to tornus; black streaks in interspaces of terminal area varying in length. Hind wing with the cell black; the terminal band expanding towards apex and below vein 2.

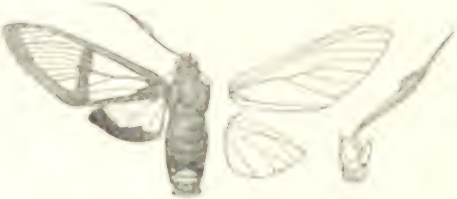

Fig. 79.—*Homœocera lophocera*, ♂. ½.

Hab. Brazil, 2 ♂ type + in Mus. Oxon. *Exp.* 50 millim.

Sect. II. Antennæ of male bipectinate, with very short branches.

A. Legs scarlet; abdomen with blue-black bands.............. *gigantea.*
B. Legs black.
  a. Fore wing with orange streaks below costa and above inner margin
    a¹. Abdomen with white band on 1st segment .... *tolosa.*
    b¹. Abdomen with two white points on 1st segment, and dorsal spots on medial segments .... *stictosoma.*
    c¹. Abdomen with lateral orange bands on medial segments [illegible]
  b. Fore wing without orange streaks.
    a¹ Abdomen with yellow bands... .... *rodriguezi.*
    b¹. Abdomen with white spots................................ *acuminata.*

331. Homœocera gigantea.

Gymnelia gigantea, Druce, Biol. Centr.-Am., Het. i. p. 54, pl. 8. f. 5 (1884); Kirby, Cat. Het. p. 136.

Head, thorax, and abdomen black; palpi and legs scarlet; abdomen with dull blue dorsal bands; wings hyaline, the veins, basal area, and margins black. Fore wing with black discocellular band. Hind wing with the terminal band expanding widely towards tornus.

Hab. GUATEMALA, 1 ♂ (*Rodriguez*); COSTA RICA, 1 ♀ (*Van Patten*), type Godman-Salvin Coll. *Exp.* 60 millim.

*332. Homœocera tolosa. (Plate VI. fig. 28.)

Isanthrene tolosa, Druce, P. Z. S. 1883, p. 374; Kirby, Cat. Het. p. 132.

♀. Head, thorax, and abdomen black; antennæ orange at extremities; vertex of head and tegulæ with blue patches; abdomen with large dorsal white patches on 1st segment, separated by a narrow black line, the other segments with subdorsal blue patches with some yellow scales beyond them; obsolescent ventral white bands on 2nd, 3rd, and 4th segments; wings yellowish hyaline, the veins and margins black. Fore wing with orange streak below costa extending nearly to apex, and two above inner margin, the lower extending to beyond middle; the terminal band expanding slightly towards apex.

Hab. ECUADOR, Intaj (*Buckley*), type † in Coll. Druce. *Exp.* 38 millim.

333. Homœocera stictosoma. (Plate VI. fig. 17.)

Homœocera stictosoma, Druce, A. M. N. H. (7) i. p. 402 (1898).

Head, thorax, and abdomen black; 1st joint of palpi with white spots; tegulæ, patagia, and metathorax with white and blue spots; coxæ with white patches; abdomen with paired white spots on 1st segment and blue spots on lateral tubercles; the 3rd, 4th, and 5th segments with dorsal white spots, the terminal segments with some blue scales; the 3rd and terminal segments with lateral white spots, the medial segments with sublateral spots; wings yellowish hyaline, the veins and margins black. Fore wing with the base black with blue point; slight orange streaks below costa to beyond middle and above and below basal half of vein 1; the terminal band expanding widely on apical area and slightly at tornus. Hind wing with the terminal band expanding slightly towards apex, and widely with dentate inner edge towards tornus.

Hab. COLOMBIA, 1 ♂; type † ♀ in Mus. Oxon. *Exp.*, ♂ 44, ♀ 48 millim.

334. Homœocera sahacon.

Homœocera sahacon, Druce, A. M. N. H. (6) xviii. p. 29 (1896); Biol. Centr.-Am., Het. ii. p. 340, pl. 71. f. 8.

♀. Head, thorax, and abdomen black; frons, vertex of head, tegulæ, thorax, and legs with patches of brilliant blue; abdomen with lateral and sublateral series of brilliant blue patches, the 2nd, 3rd, and 4th segments with lateral orange bands, the terminal segment with ventral orange spot; wings hyaline yellow, the veins and margins narrowly black. Fore wing with blue point at base;

orange streaks below basal half of costa and above base of inner margin. Hind wing with dentate black marks on termen at vein 1.

Hab. Panama, Chiriqui, 1 ♀. *Exp.* 48 millim. Type † in Coll. Staudinger.

335. Homœocera rodriguezi.

Homœocera rodriguezi, Druce, P. Z. S. 1890, p. 494; Druce, Biol. Centr.-Am., Het. ii. p. 340, pl. 71. f. 5; Kirby, Cat. Het. p. 133.

Fig. 80.—*Homœocera rodriguezi*, ♂. 1/1.

Head and thorax black; fore coxæ with white spots; abdomen black, with rather broad yellow segmental bands; a white spot on ventral valve of male; wings hyaline, the veins and margins black. Fore wing with the base black; a discoidal black band. Hind wing with the terminal band expanding very widely between veins 1 and 2.

Hab. Mexico, Jalapa (*Trujillo*); Guatemala (*Rodriguez*), type Godman-Salvin Coll. *Exp.* 42 millim.

336. Homœocera acuminata.

Lagaria acuminata, Wlk. vii. 1608 (1856). Kirby, Cat. Het. p. 142.
Gartha dalsa, Schaus, Am. Lep. i. pl. 1. f. 15 (1892).

♂. Head, thorax, and abdomen velvety black; antennæ white at tips; palpi white at base; frons, tegulæ, and shoulders with white spots edged with metallic blue; vertex of head, tegulæ, and legs with patches of metallic blue; fore coxæ white; abdomen with paired dorsal white spots and lateral blue and white spots on 1st segment, dorsal and lateral spots on 2nd segment, and dorsal blue spots on the other segments; the ventral valve with curved white band; slight white spots at extremity; wings hyaline, the veins and margins black. Fore wing with the base black with blue points. Hind wing with the terminal band expanding irregularly between vein 2 and tornus.

Hab. Brazil, Castro Paraná, 1 ♂. *Exp.* 42 millim. Type † in Mus. Oxon.; type † *dalsa* in Coll. Schaus.

Sect. III. Antennæ of male with the medial part serrate.

337. Homœocera crassa.

Homœocera crassa, Feld. Reis. Nov. pl. 102. f. 26 (1874); Druce, Biol. Centr.-Am., Het. ii. p. 339; Kirby, Cat. Het. p. 132.

Head and thorax black; vertex of head, tegulæ, shoulders, an fore coxæ with small white points; abdomen black, with narrow yellow segmental bands; small white subdorsal points on 1st two segments: a white spot on the ventral valve of male; wings hyaline, the veins and margins narrowly black. Fore wing with the base black, with two minute white points on it. Hind wing with the terminal band expanding widely between veins 1 and 2.

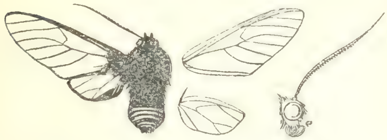

Fig. 81.—*Homœocera crassa*, ♂. $\frac{1}{1}$.

Hab. Costa Rica (*Underwood*), Godman-Salvin Coll. *Exp.* 40 millim.

Genus NEOTRICHURA.

Type.

Neotrichura, Druce, Biol. Centr.-Am., Het. ii. p. 350 (1897)......... *penates*.

Proboscis well developed; palpi upturned and reaching vertex of head; antennæ with the shaft dilated at middle, especially in female, bipectinate, with short branches dilated at extremity; tibiæ with the spurs moderate; thorax clothed with woolly hair; abdomen with subdorsal tufts of hair on first two segments. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing of female with the cell very long, vein 2 from near angle; 3 and 5 absent; 6, 7 from upper angle; male with vein 2 from angle of cell; the whole apical part of costal area bent over, forming a fold on under surface containing flocculent white hair.

338. Neotrichura penates.

Neotrichura penates, Druce, Biol. Centr.-Am., Het. ii. p. 350, pl. 72. f. 10 (1897).

Cosmosoma dukinfieldia, Schaus, Journ. New York Ent. Soc. iv. p. 132 (1897).

Black; antennæ white at tips; frons with blue-green patch: patagia with whitish point; abdomen shot with blue, diffused blue-green at base and lateral and sublateral series of spots; wings hyaline, the veins and margins broadly black. Fore wing with discoidal black bar conjoined to costal fascia; two oblique pale brownish streaks on middle of inner margin and a short streak on costa beyond middle; the terminal band with crenulate inner edge and expanding at tornus and towards apex. Hind wing with the terminal band expanding slightly towards apex.

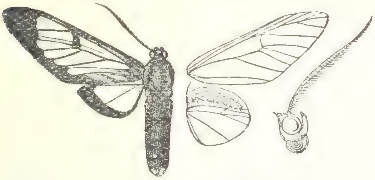

Fig. 82.—*Neotrichura penates*, ♂. $\frac{1}{1}$.

Hab. Panama, Chiriqui, Coll. Staudinger, type †; Brazil, Castro Paraná, Rio Janeiro (*Schaus*), 1 ♂ 1 ♀. *Exp.* 46 millim.

Genus ISANTHRENE.

	Type
Isanthrene, Hubn. Verz. p. 125 (1827)	*incendiaria.*

Proboscis well developed; palpi obliquely upturned, the 2nd joint reaching vertex of head and moderately scaled, the 3rd well developed and obtuse; antennæ with the shaft dilated from beyond base to near apex, bipectinate, with moderate branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; abdomen with lateral tubercles on basal segment, male with ventral valve covering basal segments. Fore wing with vein 3 from well before angle of cell ; 4, 5 separate at origin or from a point, 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell very short, the upper discocellular oblique; veins 2 and 4 on a long stalk ; 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Hind wing with the discocellulars oblique throughout.

A. Abdomen with dorsal series of black spots	*felderi.*
B. Abdomen with black bands on last five segments	*pentagona.*

339. Isanthrene felderi.

Dycladia felderi, Druce, P. Z. S. 1883, p. 377; id. Biol. Centr.-Am., Het. i. p. 63, pl. 7. f. 18; Kirby, Cat. Het. p. 146.

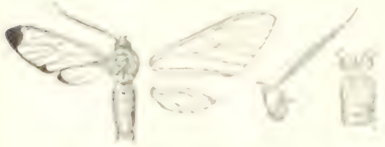

Fig. 83. *Isanthrene felderi*, ♂. $\frac{1}{1}$.

Head, thorax, and abdomen greenish yellow; palpi and legs orange; antennæ black; neck black; thorax with black spots; patagia with black mark at base; abdomen with dorsal series of black spots diminishing distally, the basal segment with black bars on its lateral tubercles; wings hyaline, the veins and margins black. Fore wing with subcostal orange stripe, the base of inner margin yellow; the terminal band expanding widely on apical area and dentate at vein 2.

Hab. Mexico, Jalapa (*Trujillo*), Orizaba (*Flohr*), Atoyac (*H. H. Smith*, *Schumann*); Guatemala (*Rodriguez*, *Champion*); Costa Rica (*Underwood*); Godman-Salvin Coll. *Exp.* 30 millim. Type † in Coll. Druce.

*340. Isanthrene pentagona. (Plate VI. fig. 19.)

Isanthrene pentagona, Schaus, J. N. Y. Ent. Soc. vi. p. 139 (1898).

♂. Head, thorax, and abdomen yellow; antennæ dark except at base; frons with white hairs; a black patch between antennæ; tegulæ banded with black; patagia edged with black; thorax with blue-black stripe; abdomen with slight black line at base of 1st segment followed by three streaks, the last five segments with black bands, broad above, narrow below; wings hyaline, the veins and margins narrowly black. Fore wing with reddish streaks on costa and inner margin; cilia of both wings reddish.

Hab. Peru. *Exp.* 24 millim. Type † in Coll. Schaus.

Sect. II. Hind wing with the discocellulars angled above median nervure.

- **A.** Legs and antennæ scarlet.
  - *a.* Abdomen black with orange patches ...... *crabroniformis.*
  - *b.* Abdomen orange with black segmental lines, the extremity crimson ...... *thyestes.*
- **B.** Tibiæ and tarsi crimson; antennæ black ...... *ustrina.*
- **C.** Legs without red.
  - *a.* Fore coxæ pure white in male.
    - a^1. Antennæ orange-red.
      - a^2. Legs yellow and black; abdomen with three spots beyond the basal segment ...... *melas.*
      - b^2. Legs black.
        - a^3. Abdomen with four pairs of spots beyond the basal segment ...... *pyrocera.*
        - b^3. Abdomen with three to no pairs of spots beyond basal segment.
          - a^4. Fore wing with the terminal band very wide on apical area ...... *perbosci.*
          - b^4. Fore wing with the terminal band expanding slightly on apical area ...... *echemon.*
          - c^4. Fore wing with the terminal band narrow and even throughout ...... *championi.*
    - b^1. Antennæ black, the tips fulvous ...... *incendiaria.*
  - *b.* Fore coxæ of male not pure white.
    - a^1. Abdomen black or with the terminal segments black.
      - a^2. Antennæ black; abdomen with slight fulvous spots on 2nd segment ...... *pertyi.*
      - b^2. Antennæ black with yellow tips.
        - a^3. Abdomen with white patch on 1st segment and line on 2nd ...... *azia.*
        - b^3. Abdomen with segmental yellow lines on 1st four segments ...... *pelor.*
      - c^2. Antennæ yellow, usually with some black on basal half of shaft.
        - a^3. Abdomen wholly black above, the 1st and 2nd segments ventrally edged with white ...... *aterrima.*
        - b^3. Abdomen with one or two pairs of spots beyond the patch on basal segment.
          - a^4. Fore wing with the terminal band hardly expanding on apical area ...... *varia.*
          - b^4. Fore wing with the terminal band very wide on apical area ...... *basifera.*
        - c^3. Abdomen with two fulvous and yellow bands. *notipennis.*
        - d^3. Abdomen with four fulvous and yellow bands.
          - a^4. Fore wing with the terminal band narrow throughout.
            - a^5. Fore wing with the costal half clouded with fulvous; abdomen with narrow segmental lines between the fulvous bands ...... *profusa.*
            - b^5. Fore wing with the costal area hyaline yellow; abdomen with broad black bands between the fulvous bands ...... *vespiformis.*
          - b^4. Fore wing with the terminal band expanding towards apex ...... *porphyria.*
    - b^1. Abdomen yellow, with slight dorsal black stripe and segmental lines ...... *minor.*

341. Isanthrene crabroniformis.

Isanthrene crabroniformis, Staud. Verh. zool.-bot. Ges. Wien, xxv. p. 120 (1875); Druce, Biol. Centr.-Am., Het. i. p. 51, pl. 6. f. 23; Kirby, Cat. Het. p. 132.

♂. Palpi and antennæ scarlet, the latter with some black on upperside of shaft; head yellow and black; thorax black, with yellow patches on tegulæ, patagia, meso- and metathorax, and at sides; legs scarlet, the coxæ white; abdomen blue-black, with subdorsal and lateral series of yellow spots on first four segments, the dorsal pair almost united on 1st segment; a ventral series of white spots on medial segments; wings hyaline yellow, the veins and margins black. Fore wing with the terminal band expanding on apical area. Hind wing with the inner area black, the margin itself yellow.

♀. Coxæ yellow.

Hab. PANAMA, Chiriqui, Bugaba (*Champion*), Godman-Salvin Coll., Taboga (*Mathew*); COLOMBIA, Bogota (*Buckley*). *Exp.* 50 millim.

*342. Isanthrene thyestes.

Isanthrene thyestes, Druce, P. Z. S. 1883, p. 374, pl. 39. f. 4; Kirby, Cat. Het. p. 131.

♂. Head orange, with black bar on vertex; palpi and antennæ crimson; thorax orange, the tegulæ and patagia edged with black; legs crimson, the tarsi black towards extremity; abdomen orange, the terminal segments crimson, the 2nd and terminal segments with black bands, the others with slight segmental lines; ventral surface crimson; wings yellowish hyaline, the veins and margins black. Fore wing with slight orange streaks above base of inner margin; the terminal black band expanding towards apex. Hind wing with the cell black.

Hab. ECUADOR, St. Lucia (*Wolf*), type ♂ in Coll. Druce. *Exp.* 50 millim.

343. Isanthrene ustrina.

Isanthrene ustrina, Hübn. Zutr. Ex. Schmett. iii. p. 25, ff. 493, 494 (1825); Kirby, Cat. Het. p. 132.

♂. Head, thorax, and abdomen black; the shoulders, patagia, and metathorax spotted with yellow; tibiæ except at base and tarsi crimson; coxæ white; abdomen with two pairs of yellow spots on first two segments, then subdorsal and sublateral series; wings hyaline, the veins and margins black. Fore wing with discocellular black lunule, the terminal band expanding greatly on apical area. Hind wing with the terminal band expanding slightly towards apex and tornus.

♀. Coxæ black.

Hab. CUBA; BRAZIL, 2 ♂ 1 ♀. *Exp.*, ♂ 50, ♀ 60 millim.

344. Isanthrene melas.

Sphinx melas, Cram. Pap. Exot. i. pl. 45. G (1775); Kirby, Cat. Het. p. 133.
Zygæna flavicornis, Fabr. Mant. Ins. ii. p. 104 (1787); Kirby, Cat. Het. p. 132.
Glaucopis vespoides, Wlk. i. 155 (1854).

♂. Head, thorax, and abdomen black; antennæ orange-red, with some black on shaft; palpi in front, frons, spots on vertex of head, tegulæ, patagia, and metathorax, and streaks on patagia and thorax yellow; legs yellow and black, the coxæ white; abdomen with a pair of yellow spots on 1st segment, a subdorsal series of lunules and lateral spots on next three segments, the medial segments with ventral white spots; wings hyaline yellow, the veins and margins black. Fore wing with the terminal band wide on apical area and expanding at vein 2; some orange and black at base of inner margin. Hind wing with the inner area black, the margin yellow.

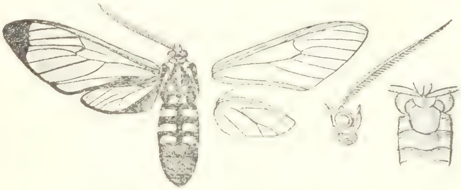

Fig. 84.—*Isanthrene melas*, ♂. 1/1.

Hab. Brazil, 1 ♂, Para, type *vespoides*, 1 ♂, Villa Nova (*Bates*). *Exp.* 50 millim.

345. Isanthrene pyrocera, n. sp. (Plate VI. fig. 16.)

Isanthrene incendiaria, Druce, Biol. Centr.-Am., Het. i. p. 50 (nec Hübn.).

♂. Head, thorax, and abdomen black; antennæ orange-red; frons, vertex of head, spots on tegulæ and thorax, and streaks on patagia yellow; fore coxæ white; abdomen with pair of dorsal yellow spots on 1st segment and paired spots on the next four segments, a ventral white spot on 3rd segment; wings hyaline yellow, the veins and margins black. Fore wing with the terminal band very wide on apical area and expanding at tornus. Hind wing with the inner area black.

♀ with the fore coxæ black; abdomen with yellow spots on five segments next the basal segment.

Hab. Mexico, Jalisco (*Schumann*), Milpas (*Forrer*), type Godman-Salvin Coll. *Exp.* 54 millim.

346. Isanthrene perbosci.

Glaucopis perbosci, Guér. Icon. R. Anim., Ins. p. 501 (1844); Kirby, Cat. Het. p. 132.
Glaucopis pompiloides, Wlk. i. 156 (1854); Butl. Ill. Het. i. p. 26, pl. 12. f. 10; Kirby, Cat. Het. p. 131.

♂. Head, thorax, and abdomen black; antennæ orange-red; coxæ white; abdomen often with one to three pairs of yellow spots on basal segments, medial segments with ventral white spots; wings hyaline yellow, the veins and margins black. Fore wing with the terminal band very wide on apical area and expanding at vein 2. Hind wing with the inner area black. Underside with the costa and veins of both wings scarlet.

♀. Coxæ black.

Hab. Mexico, Yucatan (*Gaumer*), Jalapa (*Trujillo*), Atoyac (*H. H. Smith*), Puebla (*Godman*), Godman-Salvin Coll.; Guatemala, type *pompiloides*. *Exp.* 50 millim.

347. Isanthrene echemon.

Isanthrene echemon, Druce, Biol. Centr.-Am., Het. i. p. 50, pl. 6. f. 22 (1884); Kirby, Cat. Het. p. 132.

♀. Head, thorax, and abdomen black; antennæ orange-red; wings hyaline yellow, the veins and margins black. Fore wing with some orange and black on base of inner margin; the terminal band expanding slightly towards apex. Hind wing with the inner area black. Underside with the costa and veins of both wings scarlet.

Hab. Guatemala, San Juan, Vera Paz (*Champion*), 1 ♀ Godman-Salvin Coll., type. *Exp.* 56 millim.

348. Isanthrene championi.

Isanthrene championi, Druce, Biol. Centr.-Am., Het. i. p. 50, pl. 8. f. 6 (1884); Kirby, Cat. Het. p. 131.

♀. Head, thorax, and abdomen black; antennæ orange-red; abdomen with two small yellow points on 1st segment, two white ventral spots on medial segments; wings smoky yellow hyaline, the veins and margins black; no terminal band; the cilia black. Hind wing with the inner area black. Underside with the costa and veins of both wings scarlet.

Hab. Panama, Bugaba, Chiriqui (*Champion*), 1 ♀ Godman-Salvin Coll., type. *Exp.* 64 millim.

349. Isanthrene incendiaria.

Glaucopis incendiaria, Hubn. Samml. Ex. Schmett. i. (1827); Kirby, Cat. Het. p. 132.

Isanthrene maxima, Butl. Journ. Linn. Soc., Zool. xii. p. 375 (1876); Kirby, Cat. Het. p. 132.

♂. Head, thorax, and abdomen black; antennæ fulvous at tips; neck and patagia with yellow spots; coxæ white; abdomen with subdorsal and lateral series of yellow spots on first four segments, ventral white spots on medial segments; wings hyaline yellow, the veins and margins black. Fore wing with some yellow and black on base of inner margin; the terminal band very wide on apical area and expanding at vein 2. Hind wing with the inner area black.

♀ with the coxæ black.

Ab. 1. *maxima*, ♀. Abdomen with yellow subdorsal spots on the three basal segments only.

Hab. Brazil, 5 ♂ 2 ♀, Rio Janeiro, type *maxima*. *Exp.*, ♂ 52, ♀ 56–60 millim.

350. **Isanthrene pertyi.**

Læmocharis pertyi, Herr.-Schäff. Aussereur. Schmett. i. f. 249 (1854); Kirby, Cat. Het. p. 133.

♂. Black; abdomen with fulvous subdorsal spots on 2nd segment, followed by a white point and yellow lateral spots; sublateral bluish-white spots on 2nd, 3rd, and 4th segments; wings hyaline, the veins and margins narrowly black. Fore wing with blue spot below base of costa; a fulvous subcostal streak and two streaks above basal part of inner margin; the costal half yellowish hyaline.

Hab. Brazil, Espiritu Santo, 1 ♂. *Exp.* 42 millim. Type † in Coll. Staudinger labelled *Georgia*, but this is considered to be an error.

351. **Isanthrene azia.**

Erruca azia, Druce, Biol. Centr.-Am., Het. i. p. 53, pl. 6. f. 21 (1884); Kirby, Cat. Het. p. 133.

♀. Black; antennæ yellow at tips; palpi, vertex of head, tegulæ, metathorax, and legs with patches of brilliant peacock-green; tarsi mostly orange; abdomen with dorsal white patch on 1st segment and line ending in spots on 2nd; subdorsal and sublateral series of green spots and lateral and sublateral white spots on 3rd segment; wings hyaline yellow, the veins and margins narrowly black. Fore wing with green basal spot; a subcostal orange streak and two streaks above base of inner margin. Hind wing with the terminal black line emitting teeth inwards below veins 2 and 1.

Hab. Guatemala, Vera Paz (*Champion*), 1 ♀ Godman-Salvin Coll., type. *Exp.* 42 millim.

*352. **Isanthrene pelor.** (Plate VI. fig. 18.)

Homœocera pelor, Druce, A. M. N. H. (6) xx. p. 302 (1897).

♂. Head, thorax, and abdomen brown; antennæ yellow at tips; palpi, sides of frons, and basal joint of antennæ in front yellow; vertex of head and tegulæ with patches of blue; legs black and yellow, the coxæ yellowish white; abdomen with segmental yellow lines on first four segments; subdorsal and lateral blue patches, the ventral valve edged with white; wings yellowish hyaline, the veins and margins narrowly black. Fore wing with the costal area yellow, the terminal black line expanding towards apex. Hind wing with the terminal line dentate towards tornus.

Hab. Ecuador, Sarayacu (*Buckley*), type † in Coll. Druce. *Exp.* 40 millim.

353. **Isanthrene aterrima.** (Plate VI. fig. 21.)

Gymnelia aterrima, Wlk. xxxi. 85 (1864); Kirby, Cat. Het. p. 134.
Ernesta phyleis, Druce, P. Z. S. 1883, p. 375; Kirby, Cat. Het. p. 134.

♀. Black; antennæ fulvous, the basal two-thirds of shaft black above; hind coxæ and parts of tarsi fulvous; abdomen with the 1st and 2nd segments ventrally fringed with white and with white lateral spots; wings yellow hyaline, the margins narrowly black. Fore wing with the costal half clouded with fulvous. Hind wing with black terminal patch from vein 2 to tornus.

Hab. Ecuador, Sarayacu (*Buckley*), type † *phyleis* in Coll. Druce; Amazons, Ega, 1 ♀ (*Bates*), type. *Exp.* 42 millim.

354. **Isanthrene varia.** (Plate VI. fig. 1.)

Glaucopis varia, Wlk. i. 157 (1854); Druce, Biol. Centr.-Am., Het. i. p. 52; Kirby, Cat. Het. p. 133.

Black; antennæ fulvous, with the basal two-thirds of shaft black above; vertex of head, metathorax, and legs with patches of blue scales; tarsi mostly fulvous. Abdomen with yellow dorsal patches on first two segments, followed by a pair of subdorsal white points and obscure blue spots; 2nd segment with a ventral white band, followed by white spots on 3rd and 4th, and blue spots on 5th segment; wings hyaline yellow, the veins and margins narrowly black. Fore wing with a fulvous stripe below costa, and two stripes above basal part of inner margin; a blue spot below base of costa.

The specimen from Panama has the patch at base of abdomen fulvous and slight patches on 3rd segment.

Hab. Panama, Bugaba (*Champion*), Godman-Salvin Coll.; Amazons, Para (*Bates*), type. *Exp.* 44 millim.

355. **Isanthrene basifera.** (Plate VI. fig. 3.)

Isanthrene basifera, Wlk. xxxi. 86 (1864); Kirby, Cat. Het. p. 132.
Isanthrene grenadensis, Butl. Journ. Linn. Soc., Zool. xii. p. 378 (1876); Kirby, Cat. Het. p. 134.

Black; antennæ orange, with some black on basal half of shaft above; patagia with orange spots; frons, vertex of head, tegulæ, metathorax, and legs with patches of metallic blue; tarsi orange; abdomen with dorsal yellow patch on 1st segment, paired yellow spots on 2nd and annulus on 3rd; subdorsal and sublateral series of blue spots; yellowish-white lateral patches on 2nd segment; wings hyaline yellow, the veins and margins black. Fore wing with two blue spots at base; an orange subcostal streak and two above base of inner margin; the terminal band very wide on apical area and expanding at vein 2.

Hab. Colombia, Cundinamarca, type ♀ *grenadensis*, Bogota (*Vergara*) ♂. *Exp.* 44 millim.

356. **Isanthrene notipennis.** (Plate VI. fig. 23.)

Erruca notipennis, Butl. Journ. Linn. Soc., Zool. xii. p. 378 (1876); Kirby, Cat. Het. p. 134.

♂. Palpi yellow; frons white; antennæ orange; vertex of head black and blue; thorax black striped with yellow; legs orange with slight black markings; abdomen black, with fulvous and whitish bands on first two segments followed by subdorsal blue stripes; a ventral orange band on 1st segment and whitish band on 2nd; wings yellowish hyaline, the veins and margins narrowly blackish. Fore wing with the costal half clouded with fulvous, a fulvous streak on base of inner margin. Hind wing with terminal black patch from vein 2 to tornus.

Hab. Amazons, Villa Nova, 1 ♂ (*Bates*), type. *Exp.* 40 millim.

357. **Isanthrene profusa**, n. sp. (Plate VI. fig. 5.)

Head and thorax orange fulvous; frons whitish; antennæ with some black on shaft; thorax striped with black; abdomen with the first four segments fulvous edged with black, the terminal segments black with subdorsal blue stripes and lateral spots; wings yellowish hyaline. Fore wing with the costal half clouded with fulvous; a fulvous streak on base of inner margin. Hind wing with terminal black patch from vein 2 to tornus, sometimes edged with fulvous.

Hab. Brazil, Ega (*Bates*), ♀, São Paulo, type ♂. *Exp.* 42 millim.

358. **Isanthrene vespiformis.** (Plate VI. fig. 25.)

Erruca vespiformis, Butl. Journ. Linn. Soc., Zool. xii. p. 379 (1876); Kirby, Cat. Het. p. 134.

♂. Palpi and antennæ orange; frons whitish; neck with black and blue spots; thorax orange, striped with black; tegulæ spotted with black; legs yellow and black; coxæ whitish. Abdomen black, with rather narrow yellow bands on the first four segments, the third widest, followed by blue subdorsal stripes; the first four segments yellowish white below; wings yellowish hyaline, the veins and margins narrowly black. Fore wing with orange streak below costa and streak on basal half of inner margin. Hind wing with the terminal black line expanding from vein 2 to tornus.

Hab. Amazons, Villa Nova, 3 ♂ (*Bates*), type. *Exp.* 46 millim.

359. Isanthrene porphyria.

Glaucopis porphyria, Wlk. i. 157 (1854); Kirby, Cat. Het. p. 134.
Laemocharis [illegible], Herr.-Schaff. Aussereur. Schmett. f. 245; Kirby, Cat. Het. p. 134.

Head and thorax orange fulvous; tegulæ edged with black; thorax striped with black, and with blue spots on metathorax; abdomen black, with broad fulvous and yellow bands on first four segments; a subdorsal series of blue spots, placed on dull blue stripes on the terminal segments; the first four segments yellow below with white spots; wings hyaline yellow. Fore wing with small blue spot below base of costa; fulvous stripes on costa and basal half of inner margin; the terminal band expanding towards apex.

Hab. Surinam; Amazons, Villa Nova, Ega, Para (*Bates*), type. *Exp.* 42 millim.

360. Isanthrene minor. (Plate VI. fig. 29.)

Dycladia minor, Butl. Journ. Linn. Soc., Zool. xii. p. 395 (1876); Kirby, Cat. Het. p. 146.

♂. Head black; frons and patches above the eyes white; thorax and abdomen yellow, patagia and vertex of thorax with black stripes; abdomen with black segmental lines; wings hyaline, the veins and margins black. Fore wing with slight orange streak below the costa and patch at base of inner margin; the terminal band expanding regularly on apical area. Hind wing with the base orange, extending along costa to middle; the terminal band expanding slightly at base.

Hab. Brazil, 1 ♂ type. *Exp.* 22 millim.

Genus HYDA.

	Type.
Hyda, Wlk. i. 181 (1854)	*basilutea*.

Proboscis well developed; palpi upturned, not reaching vertex of head; antennæ dilated and serrate at middle for a short distance; tibiæ with the spurs short; abdomen short and broad; male with ventral valve covering basal segments. Fore wing short and broad; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell short, the upper discocellular oblique; 2 and 4 on a long stalk; 3 and 5 absent; 6, 7 from upper angle.

361. Hyda basilutea.

Glaucopis basilutea, Wlk. i. 182 (1854); Kirby, Cat. Het. p. 148.
Eurata xanthorhina, Herr.-Schaff. Aussereur. Schmett. i. f. 226 (1854); Butl. Ill. Het. i. p. 35, pl. 11. f. 8.

Head, thorax, and abdomen yellow; tips of palpi, a spot on vertex of head, and antennæ black, the last white towards tips; tegulæ

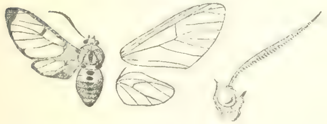

Fig. 85.—*Hyda basilutea*, ♂. $\frac{1}{1}$.

and patagia orange; metathorax with black spot; legs yellow and black; abdomen with subdorsal black spots on 1st segment and dorsal series on the others; lateral black spots on 3rd and 4th segments; the 5th and 6th segments orange; the ventral valve and two last segments below black, the latter with blue lateral spots; wings hyaline, the veins and margins narrowly black. Fore wing with the base orange, extending on inner margin to middle, a black and white spot at base of costa and a black mark on upper part of its outer edge; a black discocellular bar; the terminal band expanding slightly at apex. Hind wing with the base orange; a black spot at end of cell; the outer half of inner area black.

Hab. Colombia, Cundinamarca, Santa Marta (*Bouchard*); Brazil, Santarem (*Bates*), Pernambuco, type. *Exp.* 30 millim. Type † *xanthorhina* in Coll. Staudinger.

Genus **BOMBILIODES**, nov.

Type, *B. lænnus*.

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd moderate; antennæ bipectinate, with short branches dilated at extremity, very short in female, the shaft dilated at middle; tibiæ with the spurs moderate; abdomen with the medial segments dilated; male with ventral valve covering basal segments. Fore wing with vein 3 from before angle of cell 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; 2 and 4 from angle or shortly stalked, 3 from 2 near margin; 5 from middle of discocellulars; 6, 7 from upper angle.

A. Tegulæ and patagia orange; abdomen scarlet, with dorsal black fascia and triangular patches .... *capistrata.*
B. Tegulæ and patagia black.
  a. Abdomen with orange segmental lines with metallic blue patches between them .... *jansonis.*
  b. Abdomen black with the extremity yellow; fore wing with black bar across submedian interspace .... *bijuncta.*
  c. Abdomen with more or less orange-red or crimson at extremity.
    *a*¹. Fore wing with black bar across submedian interspace; abdomen crimson towards extremity.
      *a*². Abdomen with white bands at base and lateral crimson spots .... *cuma.*
      *b*². Abdomen without white bands at base or lateral crimson spots .... *caunus.*
    *b*¹. Fore wing without black bar across submedian interspace; abdomen orange-red towards extremity.
      *a*². Abdomen with complete or almost complete dorsal white band at base.
        *a*³. Abdomen with lateral segmental red lines .... *completa*
        *b*³. Abdomen without lateral red lines.
          *a*⁴. Abdomen with dorsal red bands on three terminal segments .... *xenodora.*
          *b*⁴. Abdomen with the anal tuft only red .... *ectomelæna.*

b^2. Abdomen without basal white band.
  a^3. Abdomen with the anal tuft only red .... areta.
  b^3. Abdomen with the terminal segment red.
    a^4. Hind wing with a discoidal black lunule conjoined to an expansion of terminal band .... lennus.
    b^4. Hind wing without discoidal lunule, the terminal band widely separated from lower angle of cell.
      a^5. Abdomen with lateral segmental red lines on last five segments.. .... simplex.
      b^5. Abdomen with lateral segmental red lines on last three segments .... collata.
d. Abdomen without orange red at extremity.
  a^1. Abdomen with white basal and red lateral lines................ whitelyi.
  b^1. Abdomen without white basal band.
    a^2. Abdomen with crimson lateral spots .... serra.
    b^2. Abdomen without crimson lateral spots .... emagrus.

362. Bombiliodes capistrata.

Zygaena capistrata, Fabr. Syst. Ent. p. 554 (1775); Kirby, Cat. Het. p. 123.
[illegible], Herr.-Schäff. Aussereur. Schmett. f. 236 (1854).

♀. Head and thorax black-brown irrorated with metallic blue scales; antennæ white at tips; tegulæ and patagia orange edged with brown; thorax below irrorated with blue and white scales; abdomen scarlet, with dorsal fascia of triangular brown marks, a sublateral series of white marks, and a ventral blue patch on 1st segment. Fore wing black, irrorated with metallic blue scales; a slight subbasal hyaline streak in cell and spot below it; a hyaline patch in end of cell, below the end, and above base of vein 2; a large hyaline patch beyond the cell between veins 2 and 7. Hind wing hyaline; a terminal black band with waved inner edge, expanding towards apex and below vein 2.

Hab. BRAZIL, 1 ♀. *Exp.* 38 millim.

363. Bombiliodes jansonis.

Cosmosoma jansonis, Butl. Cist. Ent. i. p. 116 (1872); id. Lep. Exot. p. 175, pl. [illegible] f. 17; Druce, Biol. Centr.-Am., Het. i. p. 51; Kirby, Cat. Het. p. 1[illegible]2.

♀. Head and thorax black; vertex of head and tegulæ with metallic blue patches; sides of thorax and coxæ with white patches; abdomen black, the 1st segment with yellowish-white dorsal band, the others with orange bands becoming broader towards extremity; three subdorsal metallic blue bands on median segments not quite meeting above, and with lateral spots on the segments next them; wings yellowish hyaline, the veins and margins narrowly black. Fore wing with discocellular lunule; the terminal band expanding towards apex. Hind wing with the inner area black.

Hab. COSTA RICA, Cartago (*Van Patten*), type, Irazu, 6000 ft. (*Rogers*); PANAMA, Bugaba (*Champion*), Godman-Salvin Coll. *Exp.* 40 millim.

Subsp. 1. Abdomen with the dorsal orange bands more or less obsolescent; male with the edge of ventral valve and next segment white, the remainder of ventral surface yellow.—Colombia Bogota.

364. **Bombiliodes bijuncta.** (Plate VII. fig. 1.)

Gymnelia bijuncta, Wlk. vii. 1602 (1856); Kirby, Cat. Het. p. 136.
Gymnelia consociata, Wlk. xxxi. 85 (1864); Kirby, Cat. Het. p. 136.

♀. Head and thorax black; shoulders and sides of metathorax with white spots; vertex of head and tegulæ with patches of blue; abdomen black, with subdorsal patches of blue on first two or three segments, the last three segments bright yellow, with black dorsal spot on the antepenultimate; wings hyaline, the veins and margins broadly black. Fore wing with black bar across submedian interspace below middle of cell, and black discocellular bar; the terminal band expanding slightly to apex. Hind wing with black discocellular spot; the terminal band expanding towards apex and tornus.

Hab. Amazons, Ega, 2 ♀ (*Bates*), type *consociata*. *Exp.* 46 millim. Type † *bijuncta* in Mus. Oxon.

365. **Bombiliodes cuma.** (Plate VII. fig. 2.)

Gymnelia cuma, Druce, A. M. N. H. (6) xx. p. 302 (1897).

♂. Head, thorax, and abdomen black; vertex of head and tegulæ with blue spots; shoulders, pectus, and fore coxæ with white spots; abdomen with subdorsal white patches on first two segments, the posterior edged with silvery blue; the terminal segments with lateral crimson bands, the last four segments wholly crimson below; the ventral valve edged with white; wings hyaline, the veins, and margins broadly, black. Fore wing with the base black; a black bar across submedian interspace and another on discocellulars; the terminal band expanding somewhat towards apex. Hind wing with small discoidal spot; the terminal band dentate towards tornus.

♀ with the terminal segments of abdomen black below.

Hab. Colombia, S. Martin (*Child*), type † in Coll. Druce; Bolivia, Songo (*Garlepp*), 1 ♀. *Exp.*, ♂ 42, ♀ 56 millim.

*366. **Bombiliodes caunus.**

Sphinx caunus, Cram. Pap. Exot. iii. pl. 224. E (1779); Kirby, Cat. Het. p. 136.

♀. Black; abdomen with the basal segment suffused with blue, the last five segments orange, with dorsal patch on first orange segment; wings hyaline, the veins, and margins rather broadly, black. Fore wing with subbasal black bar across submedian interspace and discoidal band conjoined to costal fascia.

Hab. Surinam; Brazil, São Paulo, in Coll. Staudinger. *Exp.* 8 millim.

367. Bombiliodes completa.

Glaucopis completa Wlk. i. 153 (1854); Butl. Ill. Het. i. p. 29. pl. 12. f. 3; Kirby, Cat. Het. p. 156.

♂. Head and thorax black; shoulders with white spots; coxæ and patches on sides of metathorax white; tegulæ with blue spots; abdomen black, with large white patches on 1st segment almost meeting dorsally and followed by small blue spots, a series of short slight orange-red lateral bands, becoming broad and meeting at extremity; the ventral valve edged with white, the segments beyond it banded with pale yellow; wings hyaline, the veins, and margins broadly, black. Fore wing with discocellular black band; the terminal band expanding towards apex and dentate at vein 2. Hind wing with the terminal band expanding towards apex and tornus.

Hab. AMAZONS, Para (*Bates*), 1 ♂ type. *Exp.* 38 millim.

368. Bombiliodes xenodora.

Gymnelia xenodora, Druce, Biol. Centr.-Am., Het. i. p. 55. pl. 7. f. 1 (1884); Kirby, Cat. Het. p. 156.

♀. Head, thorax, and abdomen black; vertex of head and tegulæ with patches of metallic blue; shoulders, sides of thorax, and coxæ with white spots; abdomen with white dorsal band on 1st segment, a series of subdorsal metallic blue patches, the last three segments with dorsal orange-red bands; wings hyaline, the veins, and margins broadly, black. Fore wing with discocellular black patch; the terminal band very wide on apical area and expanding towards tornus. Hind wing with the terminal band expanding towards apex and tornus.

Hab. MEXICO, Tabasco (*H. H. Smith*); GUATEMALA, Vera Paz (*Champion*), type, Godman-Salvin Coll. *Exp.* 46 millim.

369. Bombiliodes ectomelæna, n. sp. (Plate VII. fig. 7.)

♀. Head, thorax, and abdomen black; shoulders, vertex, and sides of thorax with white spots; coxæ white; tegulæ with blue spots; abdomen with white dorsal bands on 1st segment almost meeting above; dorsal and subdorsal series of obscure blue spots and sublateral series of white spots; anal tuft orange; wings hyaline, the veins, and margins broadly, black. Fore wing with discocellular black band; the terminal band expanding towards apex and at tornus. Hind wing with the terminal band expanding towards apex and tornus.

Hab. BRAZIL, São Paulo, 1 ♀ type. *Exp.* 44 millim.

*370. Bombiliodes aroa. (Plate VII. fig. 8.)

Gymnelia aroa, Schaus, P. Z. S. 1894. p. 225.

♀. Head, thorax, and abdomen black; vertex of head with blue spot; pectus spotted with white; coxæ white; abdomen with dorsal and lateral series of small blue spots, lateral segmental scarlet lines except on 1st segment, the anal tuft scarlet; a sublateral series of white spots conjoined into a band on 3rd segment and becoming reddish towards extremity; wings hyaline, the veins, and margins broadly, black, the terminal band expanding towards apex and above tornus of each wing. Fore wing with discoidal black lunule.

Hab. Venezuela, Aroa. *Exp.* 36 millim. Type † in Coll. Schaus.

371. Bombiliodes lænnus.

Glaucopis lænnus, Wlk. i. 154 (1854); Butl. Ill. Het. i. p. 28, pl. 12. f. 8; Kirby, Cat. Het. p. 136.

♂. Head and thorax black; antennæ white at tips; shoulders with white spots; vertex of head and tegulæ with patches of metallic blue; fore coxæ white; abdomen black, with the last three segments orange-red; subdorsal blue patches on the black segments; wings hyaline, the veins, and margins broadly, black. Fore wing with black discocellular patch; the terminal band expanding evenly to apex. Hind wing with black discocellular band; the terminal band very broad below vein 2, along which it is angled inwards to join the discocellular band, and expanding to apex.

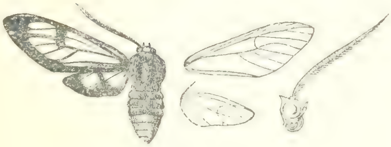

Fig. 86.—*Bombiliodes lænnus*, ♂. $\frac{1}{1}$.

♀. Fore coxæ black; abdomen of one specimen with two black dorsal patches on the red segments, in the larger specimen these segments are fulvous instead of red.

Hab. Brazil, Rio Janeiro, 1 ♂ 2 ♀. *Exp.*, ♂ 42, ♀ 42–52 millim.

*372. Bombiliodes simplex. (Plate VII. fig. 21.)

Gymnelia simplex, Wlk. vii. 1603 (1856); Kirby, Cat. Het. p. 136.

♀. Black; vertex of head and tegulæ with patches of metallic blue scales; spots on shoulders, sides of thorax, and coxæ white; abdomen with lateral series of blue spots and slight dorsal blue points towards extremity; lateral segmental orange-red lines on last five segments, and the terminal segment orange-red; a sublateral series of white spots; wings hyaline, the veins, and margins broadly, black. Fore wing with black discocellular band conjoined to the costal fascia; the terminal band expanding towards apex and dentate inwards at veins 1 and 2. Hind wing with the terminal band expanding towards apex and tornus.

Hab. Amazons, Para (*Bates*), 1 ♀, type † Mus. Oxon. *Exp.* 40 millim.

This may be the ♀ of *collocata*.

373. Bombiliodes collocata. (Plate VII. fig. 22.)

Gymnelia collocata, Wlk. xxxi. 84 (1864); Kirby, Cat. Het. p. 136.

♂. Head and thorax black; spots on shoulders, coxæ, and patches on sides of metathorax white; tegulæ with metallic blue spots; abdomen black, with subdorsal series of metallic green spots, the last two segments banded with orange; the ventral valve edged with white, a white patch on following segment and yellow patch on terminal segments; wings hyaline, the veins, and margins broadly, black. Fore wing with black discocellular patch; the terminal band of both wings expanding towards apex and tornus.

Hab. Amazons, Ega, 1 ♂ (*Bates*), type. *Exp.* 42 millim.

*374. Bombiliodes whitelyi. (Plate VII. fig. 28.)

Gymnelia whitelyi, Druce, P. Z. S. 1883, p. 376; Kirby Cat. Het. p. 136.

♀. Head, thorax, and abdomen black; vertex of head and tegulæ with patches of blue; sides of frons, shoulders, and pectus with white points; coxæ white; abdomen with white basal band, the other segments with dorsal and lateral series of blue spots and lateral orange-red lines, the four medial segments with sublateral white spots; wings hyaline, the veins, and margins very broadly, black. Fore wing with discoidal black lunule. Both wings with the terminal band expanding towards apex and tornus.

Hab. E. Peru (*Whitely*). *Exp.* 44 millim. Type † in Coll. Druce.

*375. Bombiliodes serra.

Gymnelia serra, Schaus, P. Z. S. 1892, p. 274, and Am. Lep. pl. i. f. 10.

♂. Head, thorax, and abdomen black; pectus behind and coxæ spotted with white; abdomen with lateral series of metallic blue spots, with crimson spots between them on four median segments; wings hyaline, the veins, and margins broadly, black; the terminal band of both wings expanding towards apex and below vein 2. Fore wing with discoidal band.

Hab. Brazil, Rio Janeiro. *Exp.* 46 millim. Type † in Coll. Schaus.

376. Bombiliodes enagrus.

Sphinx enagrus, Cram. Pap. Exot. iii. pl. 248. D (1779); Kirby, Cat. Het. p. 136.
Gymnelia dexamene, Druce, A. M. N. H. (6) xx. p. 302 (1897).

♀. Head, thorax, and abdomen black; shoulders and sides of thorax with white spots; coxæ white, sometimes slight white marks on vertex of thorax and on sides of 1st segment of abdomen; vertex of head and tegulæ with patches of metallic blue; abdomen with subdorsal series of metallic green spots and sublateral series of white spots; wings hyaline, the veins, and margins broadly, black. Fore wing with discocellular black band; the terminal band expanding widely towards apex and dentate at vein 2. Hind wing with the terminal band expanding towards apex and tornus.

Ab. 1. *dexamene*: the white patches on 1st segment of abdomen more developed.

Hab. Brazil, Ega, 2 ♀ (*Bates*). *Exp.* 46 millim. Type † *dexamene* in Coll. Druce.

Cramer's figure shows a dorsal series of green spots as well as the subdorsal.

Genus SAROSA.

Type.
Sarosa, Wlk. i. 151 (1854).. *sesiiformis.*

Proboscis well developed; palpi upturned, the 2nd joint reaching above vertex of head, the 3rd obtuse; antennæ bipectinate with long branches; thorax and abdomen dorsally clothed with woolly hair; tibiæ with the spurs moderate. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell very short and the discocellulars angled just above median nervure; veins 2 and 4 on a long stalk, 3 and 5 absent, 6, 7 from upper angle.

Sect. I. Abdomen entirely clothed with woolly hair.
A. Abdomen with the basal and three terminal segments orange-red .... *ignicolor.*
B. Abdomen with the segments fringed with yellow .... *sesiiformis.*

* 377. Sarosa ? ignicolor.

Læmocharis ignicolor, Ménétr. Cat. Lép. Pét. ii. p. 139, pl. 14. f. 3 (1857); Kirby, Cat. Het. p. 149.

♂. Head and thorax black-brown; shoulders with pink spots; tegulæ and patagia with white points; abdomen black-brown, with the first segment above pink and the three terminal segments orange-red; wings hyaline, the veins and margins black. Fore wing with the base pink; a discoidal black lunule; the terminal band expanding widely on apical area. Hind wing with the base and submedian fold pink, the terminal band expanding slightly towards apex.

Hab. Brazil, Minas Geraes. *Exp.* 42 millim. This species is unknown to me.

378. Sarosa sesiiformis.

Glaucopis sesiiformis, Wlk. i. 151 (1854); Butl. Ill. Het. i. p. 27, pl. 12. f. 5; Kirby, Cat. Het. p. 133.

♂. Head and thorax black; frons and thorax with patches of olive-yellow; thorax at sides and legs with patches of metallic blue; tarsi orange at extremities; abdomen black, with olive-yellow patch on 1st segment and narrow bands on the others, those on segments 2 and 3 rather broader; subdorsal and sublateral series of metallic blue spots; wings yellowish hyaline, the veins and margins black. Fore wing with blue spot at base; the inner area black; the terminal band very wide on apical area and emitting short streaks between the veins. Hind wing with the terminal band emitting short streaks between the veins and expanding into irregular dentitions between vein 2 and tornus.

Hab. Venezuela, 1 ♂ type. *Exp.* 40 millim.

Sect. II. Abdomen with the basal segments only woolly.

A. Thorax and abdomen orange.
  a. Head black.
    a¹. Fore wing with the base orange .... *xanthobasis.*
    b¹. Fore wing with the base black .... *notata.*
  b. Head [illegible]
B. Thorax dark brown; abdomen blue- or greenish-black.
  a. Abdomen with two orange bands .... *azora.*
  b. Abdomen without bands.
    a¹. Fore wing with the margins narrowly dark .... *pompilina.*
    b¹. Fore wing with the margins broadly dark .... *lence.*

* 379. Sarosa xanthobasis. (Plate VII. fig. 13.)

Sarosa xanthobasis, Druce, A. M. N. H. (7) i. p. 403 (1898).

♀. Head black; frons and vertex brilliant blue; thorax and abdomen orange; tegulæ black with blue patches; fore and mid tibiæ and tarsi and extremity of mid femora black; abdomen with dorsal black spot on 3rd segment, the 4th segment with triangular dorsal patch, the terminal segments black with metallic blue on dorsum; wings hyaline, the veins, and margins broadly, black. Fore wing with the basal area black, an orange patch at base; a discoidal black lunule conjoined to costal fascia; the terminal band expanding very widely on apical area and slightly at tornus. Hind wing with the terminal band expanding towards apex; the inner area black.

Hab. Ecuador, 1 ♀, type in Mus. Oxon. *Exp.* 58 millim.

380. Sarosa notata.

Eupyra notata, Butl. Journ. Linn. Soc., Zool. xii. p. 390 (1876); Kirby, Cat. Het. p. 145.
Cosmosoma optatum, Druce, P. Z. S. 1883, p. 377; Kirby, Cat. Het. p. 142.

♂. Head black, frons blue and white, tegulæ black with metallic blue patches; thorax orange-yellow; patagia fringed with black; legs black and yellow; abdomen orange-yellow above, with dorsal black and blue patches, some lateral black spots; the last three segments black with metallic blue bands; ventral surface black, the valve with large lateral white patches; wings hyaline, the veins and margins black. Fore wing with discocellular lunule;

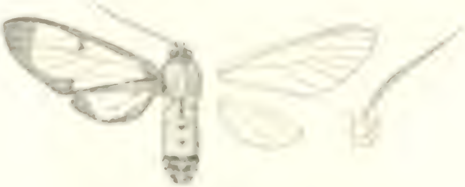

Fig. 87.—*Sarosa notata*, ♂. 1.

the terminal band very wide on apical area and expanding at tornus. Hind wing with the terminal band expanding at apex; the inner area black.

Ab. 1. Abdomen with faint traces of the dorsal black and blue spots. Coll. Staudinger.

Hab. Colombia, Cundinamarca, 1 ♂ type; Bolivia (*Buckley*), type † *ufentina* in Coll. Druce. *Exp.* 48 millim.

381. Sarosa acutior.

Isanthrene acutior, Feld. Reis. Nov. pl. 102. f. 27 (1874); Kirby, Cat. Het. p. 133.

Head and thorax fulvous orange; palpi black at base; patagia edged with fuscous; abdomen with the first four segments yellow and fulvous edged with black, the 2nd segment with broader black band with dull blue subdorsal spots on it; the terminal segments black with dull blue subdorsal stripes; wings yellowish hyaline, the veins and margins narrowly black, except the subcostal veins and cell of fore wing which are fulvous orange. Fore wing with the costal area suffused with orange; a broad orange fulvous fascia on inner margin. Hind wing with the apical area tinged with fulvous; the black on termen expanding into dentate marks towards tornus.

Hab. Ecuador, Sarayacu, 1 ♂; Amazons (*Bates*), type † in Coll. Rothschild. *Exp.* 36 millim.

382. Sarosa ozora.

Homœocera ozora, Druce, P. Z. S. 1883, p. 374, pl. 39. f. 6; Kirby, Cat. Het. p. 132.

♂. Head, thorax, and abdomen brownish black; antennæ towards tips and tarsi white; abdomen with the terminal segments greenish, dorsal orange bands on 1st and 5th segments, the latter followed by lateral spots; wings hyaline, the veins, and margins narrowly, black. Fore wing with the basal area greenish black, running out on inner margin almost to tornus. Hind wing with the basal and inner areas black.

Hab. Colombia, 1 ♂; Antioquia, Frontino (*Salmon*), type † in Coll. Druce. *Exp.* 44 millim.

383. Sarosa pompilina.

Sarosa pompilina, Butl. Journ. Linn. Soc., Zool. xii. p. 377 (1876); Druce, Biol. Centr.-Am., Het. i. p. 52, pl. 6. f. 24; Kirby, Cat. Het. p. 133.

♂. Head and thorax dark brown; antennæ with the shaft red above; abdomen blue-black, with whitish basal patch, subdorsal leaden stripes and lateral whitish spots; wings yellowish hyaline, the veins and margins black. Fore wing with crimson subcostal streak and a streak above base of inner margin. Hind wing with the terminal line expanding into irregularly dentate marks between vein 2 and tornus.

Hab. Panama, Chiriqui, Godman-Salvin Coll.; Brazil, Espiritu Santo. *Exp.* 38–42 millim.

*384. Sarosa leuce.

Dasysphinx leuce, Maasen, Stubel's Reise S. Am., Lep. p. 129, pl. 4. f. 18; Kirby, Cat. Het. p. 153.

. Head, thorax, and abdomen black-brown, the last with greenish tinge; legs white below; wings hyaline, the veins and margins black-brown. Fore wing with the margins broadly dark, the costal and inner fasciæ expanding and conjoined towards base, the terminal band with sinuous inner edge. Hind wing with the terminal band expanding and dentate towards tornus.

Hab. Colombia, Páramo de Chavés. *Exp.* 38 millim. This species is unknown to me.

Genus DASYSPHINX.

	Type.
Dasysphinx, Feld. Reis. Nov. p. 3 (1874), non descr.	*mucescens.*
Dasysphinx, Boisd. Lep. Het. i. p. 379 (1875)	*mucescens.*

Proboscis fully developed; palpi short, porrect, reaching just beyond the frons; antennæ of female serrate; head, thorax, and abdomen clothed with woolly pile; tibiæ with the spurs short; build stout. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell very short; veins 2 and 4 on a long stalk; 3 and 5 absent; 6, 7 from upper angle.

385. Dasysphinx mucescens.

Dasysphinx mucescens, Feld. Reis. Nov. pl. 102. f. 25 (1874); Kirby, Cat. Het. p. 153.

♀. Antennæ black, white at tips; head, thorax, and abdomen clothed with black-brown pile which is blue-green at tips. Fore wing hyaline, the veins and termen narrowly black; the basal area

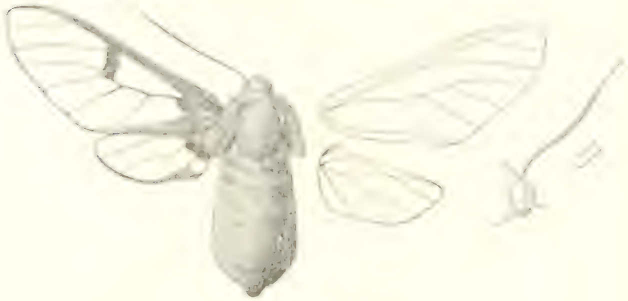

Fig. 88.—*Dasysphinx mucescens*, ♀. 1/1.

black with some blue-green pile; black fasciæ on costa and inner margin; a discoidal black bar conjoined to costal fascia. Hind wing hyaline, the veins and margins black; the basal area and a patch at tornus black; the inner area white.

Hab. Colombia, Bogota, 1 ♀. *Exp.* 72 millim. Type† in Coll. Rothschild.

Genus GYMNELIA.

	Type.
Gymnelia, Wlk. i. 152 (1852)	*gemmifera.*
Andrenimorpha, Butl. Journ. Linn. Soc., Zool. xii. p. 382 (1876)	*xanthogastra.*
Enioche, Druce, A. M. N. H. (6) xviii. p. 34 (1896)	*pitthea.*
Sansaptera, Schaus, J. N. York Ent. Soc. iv. p. 132 (1896)	*cocho.*

Proboscis well developed; palpi upturned, the 2nd joint not reaching vertex of head, the 3rd short; antennæ bipectinate with moderate branches, shorter in female; thorax woolly above; tibiæ with the spurs short; abdomen of male with fan-shaped ventral valve covering the basal segments. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the discocellulars angled; veins 2 and 4 stalked, 3 and 5 absent, or 3 given off just before margin; 6, 7 from upper angle.

Sect. I. (*Enioche*). Hind wing of male reduced to a small triangular rudiment.

A. Fore coxæ white	*pitthea.*
B. Fore coxæ black	*cocho.*

* 386. Gymnelia pitthea.

Enioche pitthea, Druce, A. M. N. H. (6) xviii. p. 34 (1896).

♂. Head, thorax, and abdomen black; palpi in front and patches on tegulæ, metathorax, and fore coxæ at sides blue; frons whitish; coxæ white; abdomen with dorsal, subdorsal, and sublateral series of blue spots. Fore wing hyaline, the veins, and margins broadly, black; the basal area black with blue point; the terminal band expanding towards apex; a discoidal black bar. Hind wing black, with subcostal blue patch on underside.

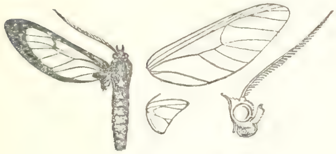

Fig. 89.
Gymnelia pitthea, ♂. $\frac{1}{1}$.

Hab. Peru. *Exp.* 34 millim. Type† in Coll. Druce.

387. Gymnelia cocho. (Plate VII. fig. 6.)

Sansaptera cocho, Schaus, J. N. York Ent. Soc. iv. p. 132 (1896).

♂. Head, thorax, and abdomen black; frons blue, with lateral white marks; tegulæ and patagia with white points; fore coxæ at sides and tibiæ in front marked with blue; hind coxæ with white and yellowish patches; abdomen with dorsal, subdorsal, and sublateral series of blue points, a ventral white band on 1st segment. Fore wing hyaline, with the veins and margins broadly black; the base black with blue point; a discoidal black bar; the terminal band expanding towards apex. Hind wing black.

Ab. 1. Fore wing with large discoidal spot, some black suffusion below end of cell and above vein 5; the terminal band broader, with sinuous inner edge.

Ab. 2. Fore wing with the area below end of cell and the terminal area black, with hyaline spots above veins 2, 3, 4 and 6.—Coll. Staudinger, S. Paulo.

Ab. 3. Fore wing with the hyaline patch below the cell reduced to three antemedial spots, the spots above veins 2 and 6 absent; patches of metallic blue below an beyond end of cell.—Coll. Staudinger, S. Paulo.

Hab. Brazil, S. Paulo, 2 ♂; Peru, Upper Amazons. *Exp.* 32 millim. Type ♂ in Coll. Schaus.

Sect. II. (*Gymnelia*). Hind wing of male normal.

A. Abdomen yellow, with dorsal blue spots on medial segments, the terminal segments black with blue bands .. *lyrcea.*
B. Abdomen with paired series of metallic blue-green spots.
  a. Abdomen with orange bands; fore wing without blue discoidal spot.
    *a*¹. Abdomen with 1st segment white; both wings with broad terminal black band .... *latimarginata.*
    *b*¹. Abdomen without white band on 1st segment; both wings with the termen narrowly black .... *taos.*
  b. Abdomen without orange bands; fore wing with blue discoidal spot .... *gemmifera.*
C. Abdomen orange-red, the base black.
  a. Wings with the basal area hyaline, the termen narrowly black .... *xanthogastra.*
  b. Wing with the basal area black, the termen broadly black .... *torquata.*
D. Abdomen black, with orange spots .... *buckleyi.*
E. Abdomen blue-black; antennæ orange .... *flavicornis.*
F. Abdomen greenish black; antennæ black, white towards tips .... *herodes.*

*388. **Gymnelia lyrcea.** (Plate VII. fig. 9.)

Homoeocera lyrcea, Druce, P. Z. S. 1883, p. 375; Kirby, Cat. Het. p. 132.

♂. Head and thorax yellow and black; abdomen yellow, with black bands expanding on 3rd, 4th, and 5th segments into dorsal patches with metallic blue spots on them; the terminal segments black with blue bands; wings hyaline, the veins and margins narrowly black, some yellow at base. Fore wing with black fascia on inner margin; a black apical patch. Hind wing with black patch at tornus.

Hab. Ecuador, Intaj (*Buckley*). *Exp.* 38 millim. Type ♂ in Coll. Druce.

389. **Gymnelia latimarginata**, n. sp. (Plate VII. fig. 27.)

♀. Head and thorax black; vertex of head and tegulæ with patches of metallic blue; shoulders, sides of thorax, and coxæ with white spots; patagia streaked with orange; abdomen with yellowish-white band with dorsal black spot on it; lateral blue patches with segmental orange lines between them, the three terminal segments with dorsal orange bands widening to extremity; wings hyaline, the veins, and margins broadly, black. Fore wing yellowish hyaline, the terminal band very wide on apical area and expanding towards tornus. Hind wing with the terminal band expanding towards apex and tornus.

Hab. Colombia, Bogota, 1 ♀ (*Vergara*), type. *Exp.* 44 millim.

390. **Gymnelia taos**, n. sp. (Plate VII. fig. 10.)

Head and thorax black; frons, vertex of head, tegulæ, metathorax, and legs with metallic blue patches; patagia with orange stripes; abdomen with dorsal orange and black bands, the black bands enclosing large lunulate metallic blue subdorsal patches, ventral surface black with sublateral series of blue spots; wings hyaline, the veins and margins black. Fore wing yellowish towards base; a metallic blue basal spot; the apical area black. Hind wing with the terminal band expanding towards tornus.

Hab. Colombia, 1 ♂ 1 ♀, types. *Exp.* 44 millim.

391. **Gymnelia gemmifera.**

Glaucopis gemmifera, Walk. i. 152 (1854); Butl. Ill. Het. i. p. 27, pl. 12. f. 12; Kirby, Cat. Het. p. 133.

♀. Head and thorax black; frons, vertex of head, tegulæ, meso- and metathorax, and legs with patches of metallic blue; patagia striped with fulvous; underside of thorax and legs with patches of orange-fulvous hair; abdomen black, with the hair on basal segment and dorsal tufts fulvous; series of large metallic-green lunulate patches. Fore wing hyaline yellow, the veins and margins black; a metallic blue basal spot and patch on the discoidal black patch; apical area black. Hind wing hyaline, yellowish towards apex; the veins and margins black; a discoidal black patch; the terminal band dentate at the discal fold, expanding towards tornus, and sending a streak to base along vein 1.

Hab. Venezuela, 1 ♀ type. *Exp.* 54 millim.

392. **Gymnelia xanthogastra.**

Glaucopis xanthogastra, Perty, Del. Anim. Art. p. 156, pl. 31. f. 5 (1834); Herr.-Schäff. Aussereur. Schmett. i. f. 298; Kirby, Cat. Het. p. 136.

♂. Head and thorax black; frons and fore coxæ white; vertex of head, tegulæ, shoulders, and legs with metallic blue patches; abdomen fulvous, the first two segments black, and a pair of dorsal spots on 3rd segment; the ventral valve large and black; wings hyaline, the veins and margins black. Fore wing with metallic blue basal spot. Hind wing with the terminal band expanding between veins 1 and 2.

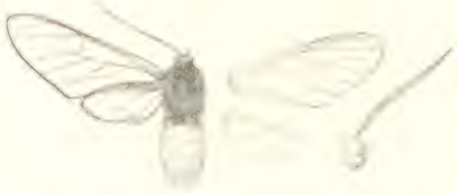

Fig. 90.—*Gymnelia xanthogastra*, ♀. ½.

♀. Head and thorax black; frons, vertex of head, and legs with patches of metallic blue; abdomen orange, the first two segments black, with subdorsal patches of metallic blue on 2nd segment; wings hyaline, the veins and margins black. Fore wing with metallic blue spot at base. Hind wing with the terminal band expanding between veins 1 and 2.

Hab. BRAZIL, 1 ♂, Petropolis, 1 ♀ (*Schaus*), Rio Janeiro, 2 ♀. *Exp.*, ♂ 44, ♀ 46 millim.

393. Gymnelia torquata. (Plate VII. fig. 16.)

Gymnelia torquatus, Druce, P. Z. S. 1883, p. 377; Kirby, Cat. Het. p. 136.

♂. Black; antennæ white at tips; frons with two white spots; coxæ and femora marked with white; tibiæ with terminal white points; abdomen with the basal half black, the terminal half scarlet. Fore wing with the basal area, the veins, a discoidal spot, and the margins broadly black; the outer part of cell and the interspaces below and beyond it occupied by hyaline patches, leaving the terminal area and a large apical patch black. Hind wing with a hyaline patch beyond the cell from below vein 2 to 7.

Hab. BRAZIL, Petropolis, 1 ♂. *Exp.* 50 millim. Type † in Coll. Druce.

*394. Gymnelia buckleyi.

Homoeocera buckleyi, Druce, P. Z. S. 1883, p. 374, pl. 39. fig. 5; Kirby, Cat. Het. p. 132.

Head, thorax, and abdomen black; antennæ towards tips, the terminal part of tibiæ, and tarsi, white; abdomen greenish black, the 1st segment with two orange-red dorsal spots, the 4th with lateral and sublateral bands, and the 5th and 6th with lateral spots. Fore wing hyaline, the veins black; the basal area black, with white points at base, and extending along submedian fold to middle and on inner margin to near tornus; a large quadrate black discoidal patch; the apical area black with sinuous inner edge; a terminal patch below vein 2. Hind wing with the basal and inner areas black, with slight hyaline streak in lower end of cell; the rest of wing hyaline, with the veins and an apical patch black.

Hab. Ecuador, Intaj (*Buckley*). Type † in Coll. Druce. *Exp.* 46 millim.

*395. Gymnelia flavicornis.

Calonotos flavicornis, Druce, P. Z. S. 1883, p. 373, pl. 39. f. 3; Kirby, Cat. Het. p. 125.

♀. Head and thorax black; antennæ orange-yellow except the base; abdomen blue-black; wings black with slight blue gloss. Fore wing with two hyaline streaks in end of cell, a large wedge-shaped spot below the cell, and streak above vein 1; three hyaline patches beyond the cell between veins 3 and 5, and elongate spots above and below vein 6. Hind wing with elongate spot below the cell, a spot between veins 2 and 4, and two elongate spots beyond the cell.

Hab. Ecuador, Loja. *Exp.* 54 millim. Type † in Coll. Druce.

*396. Gymnelia herodes.

Eupyra herodes, Druce, P. Z. S. 1883, p. 372, pl. 39. f. 1; Kirby, Cat. Het. p. 124.

♂. Head and thorax black; antennæ white towards tips; tarsi with the 1st joint white; abdomen metallic greenish; wings black shot with blue. Fore wings with the costal area greenish; a large hyaline subterminal patch between veins 8 and 3, the veins crossing it black, and with its inner edge irregular.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 38 millim. Type † in Coll. Druce.

Genus MALLODETA.

	Type.
Lycorea, Wlk. i. 192 (1854), *nec* Doubl. Lep. 1846	*clavata.*
Mallodeta, Butl. Journ. Linn. Soc., Zool. xii. p. 398 (1876)	*clavata.*

Proboscis well developed; palpi upturned; antennæ bipectinate, with moderate branches dilated at extremity and ending in bristles; tibiæ with the spurs short; abdomen with lateral tufts of hair on terminal segments. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 2 and 4 stalked; 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Palpi reaching above vertex of head, the 3rd joint moderate.

A. Abdomen of male with ventral valve.
  a. Patagia and abdomen with crimson spots .... *sanguipuncta.*
  b. Patagia and abdomen without crimson spots.
    a^1. Fore wing with two orange stripes above base of inner margin .... *sortita.*
    b^1. Fore wing without orange stripes on inner area ... *consors.*

*397. Mallodeta sanguipuncta. (Plate VIII. fig. 13.)

Mallodeta sanguipuncta, Druce, A. M. N. H. (7) i. p. 403 (1898).

♂. Head, thorax, and abdomen black; antennæ white at tips; patagia with crimson streaks; tegulæ with white points in one specimen; fore coxæ with white patches; extremities of femora, tibiæ, and tarsi white; abdomen with paired dorsal white points on 1st segment; subdorsal crimson spots on 1st and 3rd segments; 4th to 7th segments with dorsal and sublateral white points and 3rd to 7th with lateral points; wings hyaline, the veins, and margins rather broadly, black. Fore wing with the base black; a discoidal lunule; the terminal band expanding very widely on apical area and slightly at tornus. Hind wing with the basal and inner areas black; the terminal band expanding towards apex; underside with the base crimson.

Hab. ECUADOR, Papayan (*Rogers*), 2 ♂, type † in Mus. Oxon. *Exp.* 52 millim.

398. Mallodeta sortita.

Glaucopis sortita, Wlk. i. 184 (1854). Kirby, Cat. Het. p. 149.
Læmocharis deyrollii, Herr.-Schäff. Aussereur. Schmett. i. ff. 247, 251 *a* (nec Wlk.).
Læmocharis acyra, Herr.-Schäff. Aussereur. Schmett. i. f. 250 (1854); Butl. Ill. Het. i. p. 36, pl. 13. f. 6.

♂. Black; frons, shoulders, and coxæ spotted with white; abdomen with white lateral spots on proximal segments and dorsal spots on the terminal; wings hyaline, the veins and margins black. Fore wing with white point at base of costa; a fine orange stripe below costa, and two stripes above base of inner margin; the terminal band expanding towards apex. Hind wing with the costa yellowish; the inner margin black.

Hab. BRAZIL, 1 ♂ type. *Exp.* 36 millim. Types † *acyra* and *deyrollii*, H.-S., in Coll. Staudinger.

399. Mallodeta consors.

Glaucopis consors, Wlk. i. 183 (1854); Kirby, Cat. Het. p. 149.
Læmocharis norma, Herr.-Schäff. Aussereur. Schmett. f. 251 *b* (1854); Kirby, Cat. Het. p. 134.

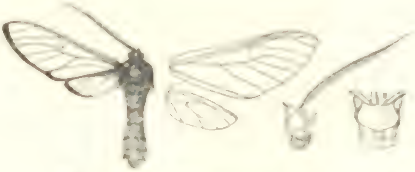

Fig. 91.—*Mallodeta consors*, ♂. ½.

♂. Black; vertex of head, shoulders, and coxæ with small white spots; abdomen with dorsal and lateral series of white points, the last two segments with larger dorsal spots, the 2nd segment with orange subdorsal and paired ventral white spots; wings hyaline, the veins and margins black. Fore wing with faint traces of orange streaks below costa and above base of inner margin; the terminal band narrow, slightly dentate at vein 2.

Hab. Brazil, 1 ♂ type, Casa Branca, 1 ♂. *Exp.* 36 millim. Type † *norma* in Coll. Staudinger.

B. Abdomen of male without ventral valve.

400. Mallodeta clavata. (Plate VII. fig. 5.)

Glaucopis clavata, Wlk. i. 192 (1854); Kirby, Cat. Het. p. 149.

♂. Black; wings hyaline, the veins and margins narrowly black. Fore wing with slight traces of orange streak below costa; the terminal band expanding slightly to apex.

Hab. Brazil, 1 ♂ type. *Exp.* 34 millim.

Sect. II. Palpi not reaching vertex of head, the 3rd joint minute; abdomen of male with small ventral valve covering basal segment.

401. Mallodeta partheni.

Zygæna parthenii, Fabr. Ent. Syst. iii. p. 402 (1793); Kirby, Cat. Het. p. 142.
Glaucopis multicincta, Wlk. i. 163 (1854); Butl. Ill. Het. i. p. 35, pl. 11. f. 11; Kirby, Cat. Het. p. 146.

Head, thorax, and abdomen black, banded with fine white rings; tegulæ and patagia edged with white, the former spotted, the latter striped with crimson; palpi at base and coxæ white; abdomen with subdorsal crimson patches on 1st segment, a lateral series of spots, and the tufts and anal tuft crimson; the ventral surface white, with black bar before anal tuft; wings hyaline, the veins and margins black. Fore wing with white streaks on costa and inner margin; a metallic blue line on discoidal spot; the terminal band very wide on apical area and with some white scales on it, some blue on costa and inner margin below. Hind wing with the terminal band slightly expanding at apex and tornus.

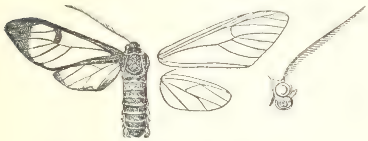

Fig. 92.—*Mallodeta partheni*, ♂. $\frac{1}{1}$.

Hab. Haiti, 1 ♂ (*Sallé*), type *multicincta*, 1 ♂ (*Tweedie*). *Exp.* 38 millim. Type in Mus. Copenhagen, examined by Prof. Aurivillius.

Genus PHŒNICOPROCTA, nom. nov.

Type

Hyela, Wlk. i. 172 (1854), *nec* Steph. Lep. 1850 .... *sanguinea.*

Proboscis well developed; palpi upturned and reaching vertex of head; antennæ of male with short branches dilated distally; tibiæ with the spurs moderate; abdomen of male with ventral valve covering basal segments, the terminal segment with lateral and anal tufts. Fore wing with veins 4, 5 from angle of cell, 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell short, veins 2 and 4 on a long stalk; 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Hind wing with the discocellulars oblique throughout; fore wing with vein 3 from well before angle of cell.

A. Abdomen with the tufts on terminal segment orange.
  a. Abdomen with paired orange basal spots .... *chrysorrhœa.*
  b. Abdomen without orange basal spots............... *metachrysea*
B. Abdomen with the tufts on terminal segment crimson, the spots at base blue .... *vacillans.*
C. Abdomen with the tufts on terminal segment slightly tinged with crimson, no spots at base ... *hæmorrhoidalis.*

402. Phœnicoprocta chrysorrhœa, n. sp.

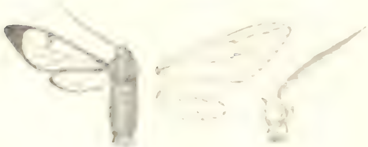

Fig. 93.
Phœnicoprocta chrysorrhœa, ♂. 1/1.

♂. Black; antennæ white at tips; frons, vertex of head, and tegulæ with patches of metallic blue; fore coxæ white and crimson; abdomen with dorsal blue spot and subdorsal orange spots on 1st segment; the tufts on terminal segment orange; wings hyaline, the veins and margins rather broadly black. Fore wing with black discoidal spot; the terminal band expanding to apex.

Hab. Colombia, Bogota, 1 ♂ (*Buckley*), type. *Exp.* 34 millim.

*403. Phœnicoprocta metachrysea. (Plate VII. fig. 12.)

Phœnicoprocta metachrysea, Druce, A. M. N. H. (7) i. p. 404 (1898).

♂. Head, thorax, and abdomen black, frons and patagia with patches of metallic blue; fore coxæ white; abdomen with dorsal and subdorsal series of silvery blue spots, the subterminal segment with orange band produced as subdorsal streaks to third segment, anal tuft orange, the ventral valve with orange patch, the subterminal segment edged with orange below; wings hyaline, the veins and margins rather broadly black. Fore wing with blue point at base and discoidal black bar; both wings with the terminal band expanding towards apex.

Hab. Cayenne, 1 ♂, type † in Mus. Oxon. *Exp.* 32 millim.

404. Phœnicoprocta vacillans. (Plate VII. fig. 11.)

Eunomia vacillans, Wlk. vii. 1617 (1856); Kirby, Cat. Het. p. 150.

♂. Black; metallic blue patches on frons, vertex of head, tegulæ, patagia, and thorax; fore coxæ white and crimson; abdomen with metallic blue dorsal and subdorsal spots on 1st segment, and dorsal and lateral series of silvery blue spots, the tufts on terminal segment crimson, the ventral valve with white patch; wings hyaline, the veins and margins rather broadly black. Fore wing with discocellular spot; the terminal band expanding to costa.

Ab. 1. Abdomen with the terminal three or four segments crimson.

Hab. COLOMBIA, Bogota (*Buckley*); BRAZIL, São Paulo, type, St. Catharina, 1 ♂ var. *Exp.* 34 millim.

405. Phœnicoprocta hæmorrhoidalis. (Plate VII. fig. 14.)

Sesia hæmorrhoidalis, Fabr. Syst. Ent. p. 549 (1775); Kirby, Cat. Het. p. 150.
Glaucopis frontalis, Wlk. i. 188 (1854).

Black; frons and vertex of head metallic blue; abdomen with the anal tuft tinged with red; wings hyaline, the veins and margins rather broadly grey-black. Fore wing with black discocellular spot; the terminal band expanding to apex.

Hab. BRAZIL, 1 ♂, type *frontalis*. *Exp.* 38 millim.

SECT. II. Hind wing with the discocellulars angled above median nervure fore wing with vein 3 from angle of cell.

A. Patagia crimson	*sanguinea.*
B. Patagia black, streaked with orange.	
a. Thorax orange	*lydia.*
b. Thorax black.	
a^1. Abdomen with the ventral surface crimson; a complete subdorsal series of crimson spots	*rubiventer.*
b^1. Abdomen with the ventral surface black; the subdorsal crimson spots on 1st four segments only	*astrifera.*
C. Patagia orange	*eximia.*
D. Patagia black with orange point	*thera.*
E. Patagia entirely black-brown.	
a. Abdomen orange and crimson, with segmental black lines	*mexicana.*
b. Abdomen black, with crimson lateral spots	*teda.*

406. Phœnicoprocta sanguinea.

Glaucopis sanguinea, Wlk. i. 172 (1854); Butl. Ill. Het. i. p. 37, pl. 11 f. 13; Kirby, Cat. Het. p. 149.

♂. Head, thorax, and abdomen black; antennæ white at tips; frons and vertex of head metallic blue; tegulæ blue tipped with crimson; coxæ crimson, fore coxæ white above; patagia crimson; abdomen with maculate subdorsal crimson bands; metallic blue dorsal and subdorsal spots on 1st segment, and dorsal and subdorsal series of silvery greenish spots; the tufts on terminal segments crimson; the ventral valve with crimson stripe; wings hyaline, the veins and margins black. Fore wing with black discocellular spot; the inner area black, and a terminal band gradually expanding to costa. Hind wing with terminal band slightly expanding to costa and slightly below vein 2.

Hab. Honduras, 1 ♂ type. *Exp.* 32 millim.

407. Phœnicoprocta lydia.

Dycladia lydia, Druce, A. M. N. H. (6) iv. p. 84 (1889), & Biol. Centr.-Am., Het. ii. p. 346, pl. 71. f. 5; Kirby, Cat. Het. p. 144.

♂. Head black, with some blue on frons; antennæ white at tips; thorax orange-yellow; tegulæ and vertex with blue and black spots; patagia edged with black; sides of thorax black and blue; legs black, the coxæ and fore femora scarlet; abdomen orange, scarlet towards extremity and below; lateral blue and black patches on 1st segment, and silvery green patches on the next segment; a series of small dorsal black and silvery green spots, large on anal segment; ventral valve black edged with scarlet. Fore wing black; two hyaline streaks in end of cell, two below end, and five beyond the cell. Hind wing hyaline, the veins and margins black; a black patch in cell; the terminal band wide on apical area and expanding towards tornus.

Hab. Mexico, Tabasco (*H. H. Smith*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 36 millim.

408. Phœnicoprocta rubiventer, n. sp.

Hyela sanguinea, Druce, Biol. Centr.-Am., Het. i. p. 63 (nec Walk.).

♂. Head, thorax, and abdomen black; antennæ white at tips; frons and vertex of head metallic blue; tegulæ blue tipped with orange; patagia streaked with orange; a metallic blue patch on metathorax; coxæ crimson, fore coxæ white in front; abdomen with blue dorsal and lateral spots on 1st segment; subdorsal series of crimson spots; ventral valve tipped with crimson, the other segments crimson below, the tufts on terminal segments crimson; wings hyaline, the veins and margins black. Fore wing with black discoidal spot; the inner area black, and a terminal band gradually expanding to apex. Hind wing with terminal band expanding to apex and slightly below vein 2.

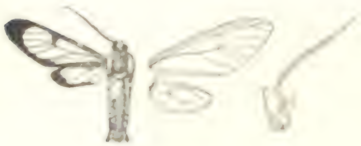

Fig. 94.
Phœnicoprocta rubiventer, ♂. 1/1.

Hab. Panama, Chiriqui (*Ribbé*), 2 ♂ type, Godman-Salvin Coll. *Exp.* 30 millim.

409. Phœnicoprocta astrifera.

Hyela astrifera, Butl. Ill. Het. i. p. 38, pl. 17. f. 2 (1877); Kirby, Cat. Het. p. 150.

♂. Head, thorax, and abdomen black; antennæ white at tips; frons, vertex of head, and thorax with patches of blue; tegulæ blue tipped with orange; patagia fringed with orange; coxæ crimson, fore coxæ white in front; mid and hind tarsi whitish; abdomen with dorsal and lateral blue spots on 1st segment and slight dorsal spots on the following segments; subdorsal crimson spots on first four segments; the ventral valve tipped with crimson; the tufts on terminal segment crimson; wings hyaline, the veins and margins black. Fore wing with black discocellular spot; the inner area black; the terminal band expanding to apex and below vein 2. Hind wing with the terminal band expanding to apex and slightly below vein 2.

Hab. AMAZONS, Braga, Rio Javary, (*Traill*), 1 ♂ type. *Exp.* 30 millim.

410. Phœnicoprocta eximia. (Plate VII. fig. 15.)

Glaucopis eximia, Herr.-Schäff. Corresp.-Blatt. Regensb. xx. p. 115 (1866); Kirby, Cat. Het. p. 144.

♀. Black; head, thorax, and abdomen largely suffused with metallic blue; tegulæ and patagia orange; abdomen with two dorsal crimson points on 1st segment, the four medial segments with sublateral white points. Fore wing irrorated with metallic blue; an elliptical hyaline spot below base of cell; an elongate quadrate patch in cell, and elongate patches below middle of cell and vein 2 and between veins 2 and 7. Hind wing hyaline, the veins and margins black, the terminal band expanding towards apex and tornus. Underside of both wings with patches of metallic blue.

Ab. 1. Fore wing with the discoidal black patch extending nearly to vein 2.—Porto Rico.

Ab. 2. Fore wing with the discoidal patch conjoined to the fascia on inner margin, the hyaline patches all reduced.—Sta. Cruz.

Hab. CUBA; PORTO RICO; STA. CRUZ, 1 ♀. *Exp.* 34 millim. Type † in Coll. Staudinger.

411. Phœnicoprocta thera.

Dycladia thera, Druce, A. M. N. H. (6) iv. p. 85 (1889); id. Biol. Centr.-Am., Het. ii. p. 347, pl. 71. f. 26; Kirby, Cat. Het. p. 144.

♂. Black; antennæ white towards tips; frons and tegulæ metallic blue; patagia with small orange spots; fore coxæ and base of femora crimson; abdomen with small subdorsal orange spots on 1st segment; lateral and dorsal series of metallic blue spots; the ventral surface, except the valve and anal tuft, crimson. Fore wing with two hyaline streaks in end of cell, two below the end, and four beyond the end. Hind wing hyaline, the veins and margins black; a black patch in cell; the terminal band wide on apical area and expanding towards tornus.

Hab. Mexico, Tabasco (*H. H. Smith*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 34 millim.

412. Phœnicoprocta mexicana.

Gymnelia mexicana, Wlk. xxxi. 84 (1864); Druce, Biol. Centr.-Am., Het. i. p. 61, pl. 7. f. 2; Kirby, Cat. Het. p. 144.

Head and thorax black; legs scarlet, the tarsi black; abdomen orange-yellow, the base black and extremity scarlet; black segmental lines; the ventral valve of male black. Fore wing black, with two hyaline streaks in end of cell, two below the end, and four beyond the cell. Hind wing hyaline, the veins, margins, and a patch in cell black; the terminal band very wide on apical area and at tornus.

Hab. Mexico, Orizaba (*Godman*, *Botteri*), type; Jalapa (*Hoege*, *Trujillo*), Godman-Salvin Coll. *Exp.* 36 millim.

413. Phœnicoprocta teda.

Glaucopis teda, Wlk. i. 177 (1854); Butl. Ill. Het. i. p. 34, pl. 11. f. 1; Kirby, Cat. Het. p. 144.

Head, thorax, and abdomen black-brown; palpi crimson at base; tegulæ with crimson spots; abdomen with lateral white spots on basal segments and lateral series of crimson triangular spots; the ventral valve and two following segments white. Fore wing brown; a crimson spot at base; a wedge-shaped hyaline streak in cell and two below it; a series of four hyaline streaks beyond the cell, the upper one sometimes with a little crimson at its apex. Hind wing hyaline; a brown mark in cell; the veins brown; a brown terminal band expanding towards apex and tornus.

Hab. Brazil, Santa Catharina, 2 ♂ type. *Exp.* 24 millim.

Genus EUNOMIA.

	Type.
Eunomia Hubn. Verz. p. 125 (1827)	*colombina.*
Marissa, Wlk. i. 174 (1854)	*colombina.*

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd porrect and varying in length; antennæ bipectinate, with moderate branches ending in a bristle, the shaft dilated just before extremity; tibiæ with the spurs moderate; abdomen short and broad, with a pair of dorsal tubercles above the large foliaceous lateral expansions to 1st segment and small ventral valve. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell very short; the discocellulars oblique throughout; veins 2 and 4 on a long stalk; 3 and 5 absent; 6, 7 shortly stalked.

A. Fore wing with crimson central discoidal spot.
  a. Abdomen black ringed with white at sides and below, and with lateral crimson spots .... *colombina.*
  b. Abdomen crimson at sides and below .... *rubripunctata.*

B. Fore wing without crimson on discoidal spot.
  a. Fore coxæ and sides of abdomen crimson.
    a^1. Pectus wholly crimson ; abdomen with segmental white lines.. *latenigra.*
    b^1. Pectus with three paired crimson spots ; abdomen with two white lines on each segment.......................... *nitidula.*
  b. Fore coxæ white, sides of abdomen black.......................... *insularis.*

414. Eunomia colombina.

Zygæna colombina, Fabr. Ent. Syst. iii. 1, p. 403 (1793) ; Hübn. Zutr. Ex. Schmett. i. p. 8, ff. 8, 9 ; Butl. Ill. Het. i. p. 34, pl. 11. f. 3 ; Kirby, Cat. Het. p. 146.

Læmocharis fasciatella, Ménétr. Cat. Lép. Pét. ii. p. 140, pl. 14. f. 4 (1857).

♂. Head, thorax, and legs black, striped with white ; the frons, tegulæ, and patagia edged with white ; crimson points at base of antennæ and patches on sides of thorax ; hind legs striped with crimson ; abdomen black, with numerous narrow white rings ; a dorsal crimson spot on 1st segment and lateral patches on the expansions ; the 2nd segment white with short dorsal black line, the 3rd segment with crimson ring ; lateral and ventral series of crimson spots, and the ventral valve and claspers crimson ; wings hyaline, the veins and margins black. Fore wing with fine white streaks on subcostal nervure, above inner margin, and on veins of outer area ; a black-edged crimson discoidal spot ; the terminal band expanding widely on apical area and at tornus, and with slight crimson patches on it. Hind wing with the terminal band expanding widely on apical area and irregularly towards tornus.

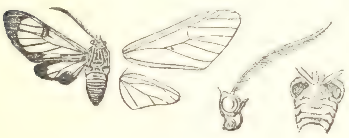

Fig. 95.—*Eunomia colombina*, ♂. $\frac{1}{1}$.

Hab. Haiti, 1 ♂ (*Tweedie*) ; Honduras ; Brazil. *Exp.* 28 millim. Type in Mus. Copenhagen, examined by Prof. Aurivillius.

415. Eunomia rubripunctata. (Plate VII. fig. 17.)

Marissa rubripunctata, Butl. Journ. Linn. Soc., Zool. xii. p. 395 (1876) ; Kirby, Cat. Het. p. 146.

♂. Head and thorax black ; 1st joint of palpi, vertex of head, and tegulæ in front crimson ; palpi with fine white stripes ; tegulæ and patagia with fine white edges ; thorax below crimson ; legs black striped with white ; abdomen crimson, the dorsum black except at base and with fine white lines ; wings hyaline, the veins and margins black. Fore wing with fine white stripes on costa and inner margin and veins of terminal band ; a black-edged crimson discoidal spot ; the terminal band expanding to apex and below vein 2, where there is a slight crimson mark on it. Hind wing with the terminal band expanding at apex, the inner area black.

Hab. Jamaica, 3 ♂ (*Gosse*), type. *Exp.* 32 millim.

416. Eunomia latenigra. (Plate VII. fig. 18.)

Marissa latenigra, Butl. Journ. Linn. Soc., Zool. xii. p. 395 (1876); Kirby, Cat. Het. p. 147.

♂. Head and thorax black; 1st joint of palpi, a stripe on 2nd joint, a line on frons, tegulæ in front, and thorax below crimson; patagia with fine white edges; abdomen crimson at sides and below except the terminal segments; short dorsal white lines on terminal segments; wings hyaline, the veins and margins black. Fore wing with the inner area black, with short hyaline streak at middle; a black discocellular patch; a terminal black band very wide on apical area. Hind wing with the terminal band very wide towards apex and tornus.

Hab. Bahamas; Honduras, 1 ♂, type. *Exp.* 32 millim.

*417. Eunomia nitidula.

Glaucopis nitidula, Herr.-Schäff. Corresp.-Blatt. Regensb. xx. p. 114 (1866); Kirby, Cat. Het. p. 147.

Black; palpi, head, tegulæ, and thorax marked with white; pectus with three pairs of crimson spots; abdomen with the 1st segment crimson, the others black with medial and terminal white lines on each segment; the ventral surface crimson; wings hyaline, with the veins, and margins rather narrowly, black; fore wing with discoidal black spot.

Hab. Cuba. *Exp.* 26 millim. This species is unknown to me.

*418. Eunomia insularis.

Eunomia insularis, Grote, Proc. Ent. Soc. Phil. vi. p. 188, pl. 5. f. 5 (1866); Kirby, Cat. Het. p. 147.
Glaucopis elegantula, Herr.-Schäff. Corresp.-Blatt. Regensb. xx. p. 114 (1866).

Black; some white scales above frons, on vertex of head, and behind eyes; palpi white below and at sides; tegulæ, patagia, and metathorax edged with white; a dorsal white stripe; pectus in front and fore coxæ white, the rest of pectus, mid and hind coxæ, and hind femora on outer side crimson; legs black and white; abdomen with crimson dorsal and lateral patches; 1st segment with white dorsal patch and lines; the other segments black with segmental white lines, broader on 2nd and 4th segments; the ventral surface crimson at base and striped with white in male; wings hyaline, the veins and margins broadly black. Fore wing with quadrate discoidal black patch conjoined to costa, the area below vein 1 black, with short medial hyaline streak; terminal band of both wings expanding widely on apical area.

Hab. Cuba. *Exp.* 26–28 millim. Type † *elegantula* in Coll. Staudinger.

Genus PHEIA.

Type.
Pheia, Wlk. i. 146 (1854).. *albisigna.*

Proboscis well developed; palpi upturned, reaching just above vertex of head, the 3rd joint well developed; tibiæ with the spurs moderate; abdomen of male with small ventral valve. Fore wing with veins 4, 5 from angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell very short, the discocellulars very oblique; veins 2 and 4 on a long stalk, 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Antennæ of male pectinate; fore wing with vein 3 from before angle of cell.
- A. Abdomen golden yellow with black bands.
  - *a.* Abdomen with the black bands somewhat interrupted on 3rd and 4th segments, the metallic spots small; coxæ and end of abdomen below black .... *elegans.*
  - *b.* Abdomen with the medial bands complete, the metallic spots large; coxæ and extremity of abdomen below yellow..... .... *gaudens.*
- B. Abdomen black, with silvery green fasciæ .... *sperans.*
- C. Abdomen black, with the anal tuft crimson..................... *hæmapera.*

419. Pheia elegans.

Cosmosoma elegans, Druce, Biol. Centr.-Am., Het. i. p. 59, pl. 7. f. 13 (1884).
Cosmosoma drucei, Kirby, Cat. Het. p. 140 (1892).
Cosmosoma cingla, Schaus, P. Z. S. 1894, p. 227.

Head black; frons white, the vertex metallic blue; thorax golden yellow, tegulæ and patagia outlined with black; metathorax with black and blue patch; legs yellow and black; abdomen golden yellow, the terminal segments black; a dorsal series of black marks, a dorsal band on 2nd segment, blue subdorsal spots on 2nd and 3rd segments, and dorsal and subdorsal spots on terminal segments; wings hyaline, the veins and margins black. Fore wing with yellow streak below costa to beyond middle, and yellow streaks above base of inner margin and vein 1; the terminal band very broad on apical area and expanding at vein 2. Hind wing with the base of costa and inner margin yellow; the terminal band expanding at apex and tornus.

Hab. Mexico, Jalapa (*Trujillo*), Vera Cruz (*H. H. Smith*); Guatemala, Vera Paz (*Champion*), type; Costa Rica (*Underwood*); Panama, Bugaba (*Champion*)—Godman-Salvin Coll.; Venezuela, Aroa, type † *cingla* in Coll. Schaus. *Exp.* 30 millim.

*420. Pheia gaudens.

Pœcilosoma gaudens, Wlk. vii. 1607 (1856); Kirby, Cat. Het. p. 141.

♂ Head, thorax, and abdomen orange-yellow; shaft of antennæ black; vertex of head black, with patches of metallic green scales; tegulæ and patagia outlined with black; metathorax black; patches of green scales on patagia and metathorax; abdomen with black bands expanding into dorsal triangular marks and bearing dorsal and lateral series of metallic green spots; wings hyaline, the veins and margins black. Fore wing with yellow streak below costa to beyond middle and two yellow streaks above base of inner margin; the terminal band expanding widely towards apex. Hind wing with some yellow at base, the terminal band expanding slightly towards apex.

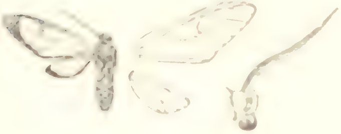

Fig. 96. *Pheia gaudens*, ♂. 1.

Hab. Venezuela, Aroa, Coll. Schaus; Amazons, Para (*Bates*), 1 ♂, type † in Mus. Oxon. *Exp.* 30 millim.

421. Pheia sperans. (Plate VII. fig. 23.)

Pœcilosoma sperans, Wlk. vii. 1606 (1856); Kirby, Cat. Het. p. 140.

♀. Black; frons and vertex of head with patches of blue scales; tegulæ, shoulders, meso- and metathorax with patches of white and blue; slight orange marks behind tegulæ and on patagia; abdomen with dorsal, lateral, and ventral silvery green fasciæ; wings hyaline, the veins and margins broadly black. Fore wing with large black discocellular patch, the terminal band expanding widely towards apex. Hind wing with the terminal band expanding towards apex and tornus.

♂. With the terminal band of both wings narrower.

Hab. Colombia, 1 ♀; Amazons (*Bates*), 1 ♀, type † in Mus. Oxon. *Exp.* 36 millim.

422. Pheia hæmapera. (Plate VII. fig. 24.)

Pheia hæmapera, Schaus, J. N. Y. Ent. Soc. vi. p. 139 (1898).

♂. Head, thorax, and abdomen black; tegulæ with large crimson spots; coxæ yellowish white; abdomen with the anal tuft crimson, the ventral valve and a patch beyond it white; wings hyaline, the veins and margins broadly black. Fore wing with wedge-shaped discoidal patch from costal fascia; the terminal band expanding widely towards apex and at tornus, and the fascia on inner margin expanding towards base. Hind wing with the terminal band expanding towards apex and tornus.

Hab. Brazil, Sta. Catharina, 1 ♂. *Exp.* 26 millim. Type † in Coll. Schaus.

Sect. II. Antennæ of male serrate, the serrations ending in a bristle. Fore wing with vein 3 from angle of cell; mid tibiæ of male greatly dilated.

A. Fore wing with crimson subcostal stripe........................ *daphæna.*
B. Fore wing without crimson subcostal stripe.
  a. Patagia striped with crimson; abdomen with two dorsal white spots .... *utica.*
  b. Patagia not striped with crimson; abdomen with a single dorsal white patch .... *albisigna.*

423. **Pheia daphæna**, n. sp. (Plate VII. fig. 25.)

♂. Head and thorax black; frons and vertex of head spotted with white; tegulæ, shoulders, and patagia with large crimson patches; fore coxæ, hind tibiæ at base, and 1st joint of tarsi white; abdomen black, with two dorsal white patches on 1st segment followed by metallic green patches which extend laterally towards extremity, the first two segments ventrally white; wings hyaline, the veins and margins black. Fore wing with crimson streaks below basal two-thirds of costa and above inner margin; a discocellular spot; the terminal band expanding very widely on apical area and below vein 2. Hind wing with the terminal band expanding widely towards apex and slightly below vein 2.

Hab. Dominica; Santa Lucia (*W. H. Eliott*), 2 ♂ type. *Exp.* 30 millim.

424. **Pheia utica.**

Dycladia utica, Druce, A. M. N. H. (6) iv. p. 85 (1889); id. Biol. Centr.-Am., Het. ii. p. 348, pl. 71. f. 28; Kirby, Cat. Het. p. 146.

♂. Head, thorax, and abdomen black-brown; antennæ white at tips; frons, vertex of head, and thorax with white marks; crimson spots on tegulæ and shoulders and stripes on patagia; fore coxæ, mid tibiæ at base, and 1st joint of tarsi white; abdomen with two dorsal spots on 1st segment, the first two segments white below; wings hyaline, the veins and margins black. Fore wing with a crimson spot at base extending for a short distance above inner margin; a discocellular spot; the terminal band expanding widely on apical area and dentate inwards below vein 2. Hind wing with the terminal band expanding towards apex.

Hab. Mexico, Guerrero (*H. H. Smith*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 26 millim.

425. **Pheia albisigna.**

Glaucopis albisigna, Wlk. i. 146 (1854); Butl. Ill. Het. i. p. 30, pl. 7. f. 14; Druce, Biol. Centr.-Am., Het. ii. p. 343; Kirby, Cat. Het. p. 139.

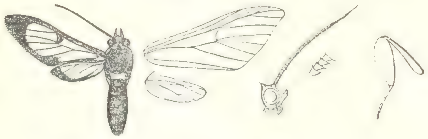

Fig. 97.—*Pheia albisigna*, ♂. 1/1.

♂. Black-brown; neck and mesothorax with white patches;

tegulæ and patagia with crimson spots; coxæ and lateral patches on thorax white; abdomen with yellowish dorsal patch on 1st segment, the 2nd and 3rd segments yellow at sides, white below; wings hyaline, the veins black, the margins rather broadly black. Fore wing with discoidal black spot; the terminal band broad on apical area and at tornus. Hind wing with the terminal band widening at apex and towards tornus.

Hab. Honduras (*Miller*), type; Amazons, Ega (*Bates*). *Exp.* 32 millim.

Genus **MIMAGYRTA**, nov.

Type, *M. pampa.*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ of female bipectinate, with short branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; abdomen with lateral tubercles at base. Fore wing with vein 3 from before angle of cell; 4, 5 separate at origin; 6 from just below upper angle; 7, 8, 10, 11 stalked, 9 absent. Hind wing with the lower part of cell short; veins 2 and 4 on a long stalk, 3 from 2; 5 absent; 6, 7 separate and parallel.

126. **Mimagyrta pampa.**

Metastatia pampa, Druce, P. Z. S. 1893, p. 284.

♀. Head, thorax, and abdomen black shot with blue; palpi at base, sides of frons, and stripes on coxæ and femora white; abdomen with slight subdorsal and broad ventral white stripes. Fore wing black, with patch of brilliant blue on base of inner area; a triangular hyaline spot in cell; a streak below vein 2 and a triangular spot above base of vein 2; a curved fascia beyond the cell between veins 7 and 3. Hind wing suffused with brilliant blue; a hyaline fascia from base below the cell and vein 2 extending above vein 4 and between 3 and 4 to near termen.

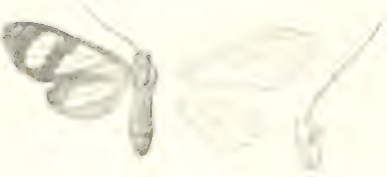
Fig. 98.—*Mimagyrta pampa*, ♂. 1/1.

Hab. Ecuador, Sarayacu (*Buckley*), type ♂ in Coll. Druce. Amazon, Teffé, 1 ♀. *Exp.* 38 millim.

Genus **LOXOPHLEBIA**.

	Type.
Loxophlebia, Butl. Journ. Linn. Soc., Zool. xii. p. 381 (1876)	*vesparis.*

Proboscis well developed; palpi upturned; antennæ bipectinate, with short branches ending in a bristle; tibiæ with the spurs moderate. Fore wing with vein 3 from well before angle of cell; 5 from well above angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the lower part of cell very short; the discocellulars oblique throughout; veins 2 and 4 on a long stalk; 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Abdomen of male with ventral valve covering basal segments; palpi reaching just above vertex of head.

A. Abdomen with lateral orange stripes.
  a. Fore wing with the veins beyond the cell orange.
    a^1. Fore wing with the termen above tornus orange .... *picta.*
    b^1. Fore wing with the termen wholly black.
      a^2. Tegulæ and patagia crimson .... *broteas.*
      b^2. Tegulæ black; patagia orange .... *splendens.*
  b. Fore wing with the veins beyond the cell not orange.
    a^1. Thorax orange-red; abdomen with lateral orange-red stripes, not reaching extremity .... *pyrgion.*
    b^1. Thorax and abdomen orange, with dorsal black stripe ... *imitata.*
    c^1. Thorax and abdomen black; patagia fringed with orange; abdomen with lateral orange stripes .... *diaphana.*
B. Abdomen without orange lateral stripes.
  a. Abdomen with subdorsal orange-red spots on 3rd and 4th segments .... *crocata.*
  b. Abdomen without subdorsal spots.
    a^1. Abdomen with the terminal segments black .... *masa.*
    b^1. Abdomen with the terminal segments orange .... *postflavia.*

427. Loxophlebia picta.

Glaucopis picta, Wlk. i. 176 (1854); Butl. Ill. Het. i. p. 32, pl. 11. f. 4; Kirby, Cat. Het. p. 145.

Head black; frons and tips of antennæ white; thorax and abdomen reddish orange to scarlet, with black dorsal stripe; abdomen with white marks on 1st segment on each side of dorsal stripe, and blue spots on the dorsal stripe, the last two segments blue-black; wings hyaline. Fore wing with orange streaks on costa and inner margin; the veins black to end of cell, then yellow; a discoidal black lunule; a large black apical patch and spot at tornus with yellow on the termen between them. Hind wing with the costa white; the veins yellow; a black spot in cell; the inner margin and apical area black.

Hab. Amazons, Para, Santarem (*Bates*), 1 ♂, 2 ♀, type. *Exp.* 24 millim.

*428. Loxophlebia broteas. (Plate VII. fig. 19.)

Dycladia broteas, Schaus, P. Z. S. 1892, p. 276.

♂. Head black; antennæ at tips and frons white; proboscis and palpi at base orange; tegulæ and patagia crimson; thorax black, with lateral crimson patches on metathorax; coxæ, tibiæ except at base, and tarsi orange; abdomen black, with subdorsal white spots on 1st segment; a series of conjoined lateral crimson patches not reaching extremity; the ventral valve orange; wings hyaline, the veins, and margins rather broadly, black. Fore wing with slight orange streak below the costa; the veins beyond the cell orange; the black on inner margin expanding at base; the terminal band expanding widely at tornus and on apical area. Hind wing with the apical area black.

Hab. Brazil, Santa Catharina. *Exp.* 24 millim. Type † in Coll. Schaus.

*429. Loxophlebia splendens. (Plate VII. fig. 20.)

Chrysostola splendens, Möschl. Stett. Ent. Zeit. xxxiii. p. 345 (1872); Kirby, Cat. Het. p. 145.

♂. Head, thorax, and abdomen black; palpi at base and proboscis orange; frons white; tegulæ with slight orange edge; patagia orange; coxæ and tarsi yellow and white; abdomen with lateral orange stripes not reaching extremity, the ventral valve orange, two dorsal white points on 1st segment; wings hyaline, the veins and margins rather broadly black. Fore wing with small orange patch at base; a discoidal black lunule; the veins from some way beyond the cell to the terminal band orange; the terminal band expanding widely at tornus and apex. Hind wing with the veins at middle orange; the terminal band expanding widely at apex.

Hab. Cayenne, 1 ♂ type in Coll. Staudinger. *Exp.* 22 millim.

430. Loxophlebia pyrgion.

Dycladia pyrgion, Druce, Biol. Centr.-Am., Het. i. p. 62, pl. 7. f. 22 (1884); Kirby, Cat. Het. p. 146.

♂. Head black; frons, tips of antennæ, and two small points behind them white; thorax orange; abdomen black, with broad orange lateral stripes, except on last three segments which are blue-black; ventral surface whitish; wings hyaline, the veins and margins black. Fore wing with orange at base, running out to points below costa and above inner margin; a discocellular black bar; the terminal band very wide on apical area. Hind wing with the terminal band expanding on apical area.

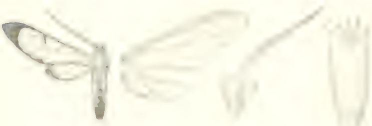

Fig. 99. *Loxophlebia pyrgion*, ♂. 1/1.

Hab. Panama, Chiriqui, Bugaba (*Champion*), 2 ♂ type, Godman-Salvin Coll.; Cayenne. *Exp.* 26 millim.

431. Loxophlebia imitata.

Dycladia imitata, Druce, Biol. Centr.-Am., Het. i. p. 62, pl. 7. f. 23 (1884); Kirby, Cat. Het. p. 145.

♂. Head black; antennæ white at tips and with two small white points behind their bases; thorax and abdomen orange, with dorsal black-brown stripe somewhat maculate on abdomen, which is black at extremity; wings hyaline, the veins and margins black. Fore wing with discocellular lunule; the terminal band expanding on apical area and at tornus. Hind wing with the terminal band slightly expanding at apex and tornus.

Hab. Guatemala, Vera Paz (*Champion*), 2 ♂ type, Godman-Salvin Coll. *Exp.* 24 millim.

432. Loxophlebia diaphana.

Glaucophis diaphana, Sepp, Ins. Surinam, ii. p. 185, pl. 81 (1848); Kirby, Cat. Het. p. 147.
Glaucopis discifera, Wlk. i. 178 (1854); Kirby, Cat. Het. p. 145.
Læmocharis bura, Butl. Ill. Het. i. p. 33, pl. 11. f. 12 (nec Herr.-Schäff.).
Chrysostola albifrons, Möschl. Stett. Ent. Zeit. xxxiii. p. 344 (1872).

♂. Head, thorax, and abdomen black-brown; tegulæ orange; patagia fringed with orange; frons and coxæ whitish; abdomen with broad orange lateral bands, the ventral valve yellowish; wings hyaline, the veins and margins black. Fore wing with discocellular black lunule; the terminal band very wide on apical area and expanding at tornus. Hind wing with the terminal band wide on apical area.

Hab. AMAZONS, Para, 1 ♂ (*Bates*), type *discifera*. *Exp.* 24 millim. Type † *albifrons*, in Coll. Staudinger.

Larva. Yellowish with brown subdorsal stripes; head brown; tubercles with sparse tufts of hair; 1st somite with long porrect tufts the 4th and 10th with large subdorsal tufts, the intermediate somites with thick short tufts.

Food-plant, a species of *Serjania* or *Paullinia*, N.O. *Sapindaceæ*.

*433. Loxophlebia crocata.

Læmocharis crocata, Herr.-Schäff. Aussereur. Schmett. f. 248 (1854); Kirby, Cat. Het. p. 141.

♀. Head, thorax, and abdomen black; frons white above; tegulæ, patagia, meso- and metathorax with crimson-red patches; fore coxæ whitish; abdomen with slight subdorsal greyish streaks on 1st segment, the 3rd and 4th segments with subdorsal red spots; wings hyaline, the veins, and margins rather broadly, black. Fore wing with short red streaks at base below costa and above inner margin; a discoidal black bar; the terminal band expanding widely at tornus and on apical area. Hind wing with the inner and apical areas black.

♂. The spots on tegulæ whitish, the orange patches on meso- and metathorax and below base of costa of fore wing wanting; ventral valve white.

Hab. CAYENNE, 1 ♂ in Mus. Oxon.; BRAZIL, Rio Janeiro, 1 ♀ Coll. Schaus. *Exp.* 30 millim.

434. Loxophlebia masa.

Læmocharis masa, Druce, A. M. N. H. (6) iv. p. 83 (1882); Biol. Centr.-Am., Het. ii. p. 341, pl. 71. f. 10; Kirby, Cat. Het. p. 137.

♀. Black; palpi in front, frons, and a ring round neck white; orange-red patches on metathorax and below base of patagia; legs with streaks of white, the tarsi mostly white; abdomen with lateral patches of white at base; wings hyaline, the veins and margins black; the terminal band broad at apex of fore wing and expanding somewhat at tornus of fore wing and apex of hind wing.

Hab. Mexico, Teapa, Tabasco: Honduras, 2 ♀ (*H. H. Smith*), type, Godman-Salvin Coll. *Exp.* 20 millim.

*435. Loxophlebia postflavia. (Plate VIII. fig. 4.)

Loxophlebia postflavia, Druce, A. M. N. H. (7) i. p. 107 (1898).

♂. Head and thorax black; frons and fore and hind coxæ white; abdomen black, with the last four segments orange and the terminal part of 5th, except on dorsum and ventral surface; wings hyaline, the veins and margins black. Fore wing with the costal and inner fasciæ expanding and meeting at base; the terminal band expanding widely on apical area and slightly at tornus. Hind wing with the terminal band expanding slightly towards apex; the inner area black, with slight hyaline streak.

Hab. Cayenne, 1 ♂, type + in Mus. Oxon. *Exp.* 28 millim.

Sect. II. Abdomen of male without ventral valve; palpi short and not reaching vertex of head, the 3rd joint minute.

- A. Wings hyaline, with narrow black margins.
  - *a.* Abdomen banded with orange and blue above...... *vesparis.*
  - *b.* Abdomen black above.
    - *a*¹. Abdomen with the ventral surface orange .... *asmodeus.*
    - *b*¹. Abdomen with the ventral surface white ...... *eucosmodes.*
- B. Wings black, with three wedge-shaped hyaline spots on fore wing and a small spot at base of hind wing ...... *triangulifera.*

436. Loxophlebia vesparis.

Pœcilosoma vesparis, Butl. A. M. N. H. (4) xii. p. 227 (1873); Kirby, Cat. Het. p. 135.

♂. Palpi orange; frons orange and black; antennæ black; vertex of head blue-black; thorax black mixed with orange; abdomen orange, with blue-edged black bands expanding into dorsal spots; the terminal segments blue banded with black, the anal segment orange below; wings hyaline, the veins and margins narrowly black. Fore wing tinged with orange towards base below costa and above inner margin; the terminal line expanding slightly at apex. Hind wing with orange streak on inner margin.

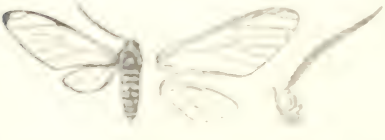

Fig. 100.—*Loxophlebia vesparis*, ♂. 1/1.

♀. Fore wing with discoidal black spot; the terminal band expanding into spots on fore wing at apex and below veins 6 and 2, and on hind wing below vein 6.

Hab. Peru, Huasampilla, 9000 feet, 1 ♂ (*Whitely*), type; Bolivia, ♀ Coll. Staudinger. *Exp.* 32 millim.

*437. **Loxophlebia asmodeus.** (Plate VII. fig. 26.)

Desmidocnemis asmodeus, Druce, P. Z. S. 1883, p. 378; Kirby, Cat. Het. p. 148.

♂. Head, thorax, and abdomen black; coxæ, stripes on legs and ventral surface of abdomen orange; wings hyaline, the veins and margins narrowly black. Fore wing with some black at base of inner area; the terminal line slightly expanding between veins 5 and 6 (which are approximated at extremity) and at apex. Hind wing with the basal half of inner area orange, the terminal half black above, wholly orange below.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 30 millim. Type † in Coll. Druce.

*438. **Loxophlebia eumonides.** (Plate VIII. fig. 2.)

Desmidocnemis eumonides, Druce, P. Z. S. 1883, p. 378; Kirby, Cat. Het. p. 148.

♂. Head and thorax black; fore coxæ white; abdomen blue-black, with two dorsal white points on 2nd segment; the ventral surface white, except terminal segments, the anal tufts partly orange; wings hyaline, the veins and margins narrowly black. Fore wing with the base black with irregular outer edge; an irregular discoidal black patch conjoined to the costal area; a black bar between the base of vein 2 and vein 1; the terminal band expanding at tornus between veins 5 and 6, which are approximated at extremity and at apex. Hind wing with the inner area black.

Hab. Ecuador, Chiguinda (*Buckley*). *Exp.* 30 millim. Type † in Coll. Druce.

439. **Loxophlebia triangulifera.**

Sphenoptera triangulifera, Feld. Reis. Nov. pl. 102. f. 34 (1874); Kirby, Cat. Het. p. 126.

♀. Black, frons metallic blue; tegulæ with white spots; shoulders with some blue scales; coxæ crimson; metathorax with blue and white spots; abdomen with dorsal and lateral series of metallic green spots. Fore wing with triangular hyaline spot below base of cell, an elongate wedge-shaped spot in cell; a small triangular spot above vein 6. Hind wing with small hyaline spot below base of cell.

♂. Fore wing without the hyaline spot above vein 6.

Hab. Venezuela, Aroa; Amazons, 1 ♂ type † in Coll. Rothschild; São Paulo, 1 ♂. *Exp.* 38 millim.

Genus MESOTHEN, nov.

Type, *M. pyrrha*.

Proboscis fully developed ; palpi obliquely upturned and reaching just above vertex of head ; antennæ of male bipectinate, with moderate branches ; tibiæ with the spurs short ; abdomen of male with ventral valve covering basal segments. Fore wing with vein 3 from angle of cell ; 5 from well above angle ; 6 from upper angle ; 7, 8, 9, 10 stalked, 11 from cell. Hind wing with the lower part of cell short, the discocellulars angled just above median nervure ; veins 2 and 4 stalked ; 3 and 5 absent ; 6, 7 from upper angle.

A. Thorax and abdomen yellow, the latter streaked with black.	*rogenhoferi.*
B. Thorax and abdomen orange.	
a. Abdomen banded with black	*petosiris.*
b. Abdomen with dorsal series of black spots	*ignea.*
C. Thorax black with orange markings ; abdomen orange with black bands	*sesiana.*
D. Thorax orange-red ; abdomen black	
a. Abdomen with subdorsal red spots on 1st three segments.	*epimetheus.*
b. Abdomen without subdorsal red spots	*pyrrha.*
E. Thorax and abdomen black	
a. Tegulæ, patagia, and patches at base of abdomen crimson.	*erythæma.*
b. Patagia and terminal segments of abdomen orange	*flaviventris.*
c. Patagia and 4th segment of abdomen with crimson spots.	*catherina.*
d. Thorax and abdomen wholly black and grey	*desperata.*

*440. Mesothen rogenhoferi.

Dycladia rogenhoferi, Schaus, P. Z. S. 1892, p. 275 ; & Am. Lep. pl. 1. f. 13.

♀. Head black ; palpi at base and back of head yellow ; frons white ; thorax and abdomen yellow ; thorax with dorsal black stripe ; knees and tarsi black ; abdomen with dorsal and lateral black stripes, becoming obsolete towards extremity, the lateral stripes becoming sublateral towards base ; wings hyaline, the veins and margins black. Fore wing with short yellow streak above base of inner margin, the terminal band expanding to apical area. Hind wing with some yellow at base.

Hab. BRAZIL, Rio Janeiro. *Exp.* 30 millim. Type ♀ in Coll. Schaus.

441. Mesothen petosiris. (Plate VIII. fig. 1.)

Loxophlebia petosiris, Druce, P. Z. S. 1883, p. 376 ; Kirby Cat. Het. p. 135.

♂. Head, thorax, and abdomen orange ; antennæ black ; tegulæ and patagia edged with black ; abdomen with pair of dorsal black spots on 1st segment ; the 2nd segment with large blue and black subdorsal patches, the 3rd and 4th with blue and black bands ; the terminal segments blue-black ; wings hyaline, the veins and margins rather narrowly black. Fore wing with orange-yellow streak below costa and short streak above inner margin ; the terminal band expanding widely on apical area. Hind wing with some yellow at base, the inner area black.

Ab. 1. Head, thorax, and base of wings orange-red.

Hab. Ecuador, Intaj (*Buckley*), type † in Coll. Druce. Bolivia, Songo, 1 ♀; San Antonio, 1 ♀. *Exp.* 32 millim.

*442. Mesothen ignea. (Plate VIII. fig. 21.)

Mesothen ignea, Druce, A. M. N. H. (7) i. p. 403 (1898).

♂. Head black; thorax and abdomen orange-red; mesothorax with pair of black spots, metathorax with single spot; legs fuscous; abdomen with dorsal series of black lunules, diminishing towards extremity, the terminal segment black; a lateral series of spots and streaks; ventral bands on terminal segments; wings hyaline, the veins and margins black. Fore wing with the base orange-red; a discoidal black lunule; the terminal band expanding very widely on apical area and at tornus. Hind wing with the base orange-red; the inner and apical areas black.

Hab. Mexico, 1 ♂, type † in Mus. Oxon. *Exp.* 42 millim.

*443. Mesothen samina.

Homœocera samina, Druce, A. M. N. H. (6) xviii. p. 30 (1896); Biol.-Centr.-Am., Het. ii. p. 340, pl. 71. f. 9.

♀. Head and thorax black; palpi with the 1st and 2nd joints orange; upper part of frons and back of head orange; tegulæ orange at tips; patagia striped with orange; legs orange, with black streaks on femora and tibiæ; abdomen orange, with black bands expanding on dorsum into conjoined patches with metallic blue spots on them, ventral surface orange with broad black bands on subterminal segments; wings hyaline, the veins and margins narrowly black. Fore wing with orange point at base; the terminal band expanding slightly towards apex. Hind wing with the inner area black.

Hab. Panama, Chiriqui, 1 ♀, type † in Coll. Staudinger. *Exp.* 38 millim.

*444. Mesothen epimetheus.

Dycladia epimetheus, Schaus, P. Z. S. 1892, p. 275; & Am. Lep. pl. 1. f. 14.

♀. Head black; antennæ white at tips; thorax orange-red above, with black patch on mesothorax and short streak on metathorax; legs striped with white; abdomen black, with orange-red spots on first three segments; wings hyaline, the veins, and margins rather broadly, black. Fore wing with orange-red patch at base extending as a short streak above inner margin; the terminal band expanding at tornus and widely on apical area. Hind wing with the inner area black; the terminal band expanding on apical area.

Hab. Brazil, Nova Friburgo. *Exp.* 26 millim. Type † in Coll. Schaus.

445. Mesothen pyrrha.

Dycladia pyrrha, Schaus, Ent. Am. v. p. 89 (1889); Druce, Biol.-Centr. Am., Het. ii. p. 348, pl. 71. f. 27; Kirby, Cat. Het. p. 146.

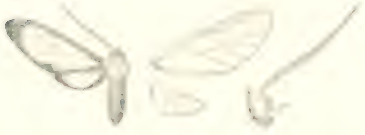

Fig. 101. *Mesothen pyrrha*, ♂, ♀.

♂. Head and abdomen black; antennæ at tips, palpi in front, frons, gulæ, and coxæ white; thorax orange; abdomen with the ventral valve white and slight dorsal white streak at base; wings hyaline, the veins and margins black. Fore wing with the terminal band expanding on apical area and at tornus. Hind wing with the terminal band expanding at apex, the inner area black.

♀. Abdomen with lateral white stripes.

Hab. Mexico, Vera Cruz; Colombia, 1 ♀; Cayenne. *Exp.* 20 millim. Type + in Coll. Schaus.

446. Mesothen erythæma, n. sp. (Plate IX. fig. 2.)

♂. Head, thorax, and abdomen black; tegulæ and patagia crimson, the latter fringed with black; coxæ and femora crimson; abdomen with lateral crimson patches on 1st segment; wings hyaline, the veins and margins rather broadly black. Fore wing with discoidal black lunule; the terminal band expanding at tornus and widely on apical area. Hind wing with the inner area black; the terminal band expanding towards costa.

Hab. Colombia, Bogota, 1 ♂ type. *Exp.* 40 millim.

*447. Mesothen flaviventris.

Dycladia flaviventris, Druce, Biol.-Centr. Am., Het. i. p. 62, pl. 8. f. 12 (1881); Kirby, Cat. Het. p. 146.

♀. Head, thorax, and abdomen black; antennæ at tips and frons white; patagia with orange patches; abdomen with lateral white spots on 1st segment, the terminal segments orange; wings hyaline, the veins and margins rather narrowly black. Fore wing with orange point at base; the base of costal and inner areas black; a black discoidal lunule; the terminal band expanding widely on apical area and slightly at tornus. Hind wing with the terminal band expanding towards apex.

Hab. Panama, Chiriqui (*Trotsch*). *Exp.* 26 millim. Type in Coll. Staudinger.

*448. Mesothen catherina.

Dycladia catherina, Schaus, P. Z. S. 1892, p. 275; & Am. Lep. pl. i. f. 12.

♂. Head, thorax, and abdomen black; patagia with crimson spots; 4th segment of abdomen with lateral crimson spots; wings hyaline, the veins and margins black. Fore wing with the base black; the terminal band expanding at tornus and widely on apical area. Hind wing with the terminal band expanding at apex.

Hab. Brazil, Santa Catharina. *Exp.* 30 millim. Type † in Coll. Schaus.

449. Mesothen desperata. (Plate VIII. fig. 3.)

Pseudomya desperata, Wlk. vii. 1602 (1856); Kirby, Cat. Het. p. 139.

♀. Black; abdomen with rather broad greyish subdorsal fasciæ; wings hyaline, the veins and margins black. Fore wing with the costal and inner fasciæ broad at base, the terminal band expanding slightly towards apex.

Hab. Panama, Chiriqui; Brazil, Amazon (*Bates*), 1 ♀ type † in Mus. Oxon., Casa Branca, 2 ♀. *Exp.* 22 millim.

Genus CHROSTOSOMA.

	Type.
Chrostosoma, Hübn. Verz. p. 126 (1827)	*echemus.*
Læmocharis, Herr.-Schäffer, Aussereur. Schmett. i. p. 80 (1854).	*echemus.*
Heterodontia, Feld. Reis. Nov. p. 5 (1874)	*tricolor.*

Palpi upturned, not reaching vertex of head, the 3rd joint acuminate; proboscis well developed; antennæ bipectinate, the branches dilated at extremity; tibiæ with the spurs minute. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with veins 2 and 4 stalked; 3 absent, or stalked with 2; 5 from middle of discocellulars; 6, 7 from upper angle.

Sect. I. Hind wing with vein 3 absent.

- A. Hind wing with the basal area white.
  - *a.* Vertex of head metallic blue; hind wing with the dark terminal band emitting a projection below the cell to near the base ... *decisa.*
  - *b.* Vertex of head dark; hind wing with the projection of terminal band not reaching beyond middle of wing... *hæmatica.*
- B. Hind wing with the basal area hyaline.
  - *a.* Abdomen with crimson dorsal spot on 1st segment ... *echemus.*
  - *b.* Abdomen with crimson subdorsal spots on 1st segment. *unxa.*

450. Chrostosoma decisa.

Pseudomya decisa, Wlk. xxxi. p. 81 (1864); Kirby, Cat. Het. p. 137.

Black with a slight purple tinge; vertex of head and metathorax with metallic blue patches; crimson spots at base of patagia; abdomen with crimson dorsal basal spot and lateral series of metallic blue spots; underside of thorax and abdomen white. Fore wing hyaline, the veins and margins black, the apical and inner areas

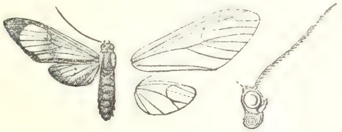

Fig. 102.—*Chrostosoma decisa*, ♂. $\frac{1}{1}$.

broadly black. Hind wing whitish at base, the terminal area broadly and irregularly black, especially in submedial interspace.

Hab. Amazons, Ega (*Bates*), 1 ♂, 1 ♀ types. *Exp.* 30 millim.

451. Chrostosoma hæmatica.

Glaucopis hæmatica, Perty, Del. Anim. Art. p. 156, pl. 31. f. 6 (1834); Kirby, Cat. Het. p. 157.
Læmocharis zantes, Herr.-Schäff. Aussereur. Schmett. i. f. 240 (1854).
Læmocharis fenestrina, Butl. Journ. Linn. Soc., Zool. xii. p. 383 (1876); Kirby, Cat. Het. p. 157.
Dycladia chalconitis, Druce, P. Z. S. 1883, p. 378, pl. 39. f. 10; Kirby, Cat. Het. p. 145.

Dark brown; patagia with crimson spots at base; abdomen with dorsal crimson basal spot and lateral series of metallic blue spots; thorax and abdomen whitish below. Fore wing with cloudy hyaline streaks on basal half below costa and in and below cell; a series of clearer hyaline postmedial streaks between veins 2 and 7. Hind wing whitish, with diffused terminal brown band widest at costa and in submedian interspace.

Hab. Ecuador (*Buckley*), type † *chalconitis* in Coll. Druce; Brazil, 2 ♂, type *fenestrina*. *Exp.* 30 millim. Type † *zantes* in Coll. Staudinger.

452. Chrostosoma echemus.

Sphinx echemus, Stoll, Pap. Exot. iv. pl. 367 B (1781); Kirby, Cat. Het. p. 141.
Glaucopis dolens, Wlk. i. 148 (1854); Kirby, Cat. Het. p. 157.
Læmocharis stulta, Herr.-Schäff. Aussereur. Schmett. i. p. 80. f. 258 (1854).

♂. Black-brown; thorax with crimson spots on shoulders; femora tinged with white; abdomen with dorsal crimson spot on 1st segment, lateral series of metallic blue spots, the ventral surface white. Fore wing hyaline, the veins and margins black-brown; a discocellular brown patch; the inner and apical areas rather broadly brown. Hind wing hyaline; some white on basal costal area; the inner and terminal areas suffused with black.

Hab. Surinam; Amazons, Para, 1 ♂ (*Bates*), type *dolens*. *Exp.* 24 millim.

*453. Chrostosoma unxa.

Pepsa unxa, Druce, Biol. Centr.-Am., Het. ii. p. 346, pl. 71. f. 24 (1897).

♀. Head, thorax, and abdomen black; vertex of head and tegulæ with some blue scales; shoulders with crimson spots; abdomen with subdorsal crimson spots on 1st segment, the 2nd and terminal segments with blue spots, ventral surface with the first four segments white; wings yellowish hyaline, the veins and margins narrowly black. Fore wing with the base black; a black apical patch. Hind wing with the terminal band very slightly dilated towards apex and expanding into a spot near tornus.

Hab. Panama, Chiriqui, 1 ♀ type † in Coll. Staudinger. *Exp.* 32 millim.

SECT. II. Hind wing with vein 3 stalked with 2.

A. Thorax and abdomen scarlet	*cardinale.*
B. Thorax black; abdomen scarlet, with the terminal segments black	*semirubrum.*
C. Thorax and abdomen black, the latter with blue and white stripes	*tricolor.*

*454. Chrostosoma cardinale. (Plate VIII. fig. 8.)

Chrostosoma cardinale, Schaus J. N. Y. Ent. Soc. vi. p. 139 (1898).

♀. Head black, frons white; thorax and abdomen scarlet; legs with the tibiæ and tarsi brown; wings hyaline, the veins and margins black. Fore wing with the base scarlet; the terminal band expanding widely on apical area and slightly at tornus. Hind wing with the terminal band expanding towards apex; the inner area black, fringed with scarlet cilia.

Hab. COLOMBIA. *Exp.* 36 millim. Type † in Coll. Schaus.

455. Chrostosoma semirubrum, n. sp. (Plate IX. fig. 1.)

♂. Head and thorax black; frons with whitish patch; shoulders with scarlet spots; coxæ and hind tarsi whitish; abdomen scarlet, with the three terminal segments black; wings hyaline, the veins, and margins broadly, black. Fore wing with medial black band expanding on discocellulars; the terminal band expanding very widely on apical area. Hind wing with the terminal band expanding towards costa; the inner area black.

♀ without white on frons or legs.

Hab. BRAZIL, São Paulo, 1 ♀ type. *Exp.* 24 millim.

*456. Chrostosoma tricolor.

Heterodontia tricolor, Feld. Reis. Nov. pl. 105. f. 25 (1874); Kirby, Cat. Het. p. 904.

♂. Head, thorax, and abdomen black; palpi in front, frons, neck, points on tegulæ and patagia, and patches on pectus white; legs white, striped with black; metathorax with blue patch; abdomen with bluish-white subdorsal stripe, lateral white stripes, and the ventral surface white; wings black. Fore wing with short metallic blue streak below base of median nervure; an oblique orange patch in end of cell and extending to vein 1; an oblique hyaline band beyond the cell between veins 3 and 7. Hind wing with the inner area brilliant blue; a blue streak in cell; a hyaline fascia below the cell, in lower end of cell, and between bases of veins 2 and 4.

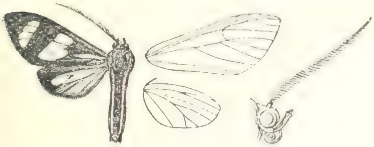
Fig. 103.—*Chrostosoma tricolor,* ♂. 1/1.

Hab. AMAZONS. *Exp.* 30 millim. Type † in Coll. Rothschild.

Genus NYRIDELA.

	Type
Nyridela, Lucas, Sagra's Hist. Cuba, Ins. p. 663 (1857)	*chalciope*.
Mochloptera, Butl. Journ. Linn. Soc., Zool. xii. p. 386 (1876)...	*chalciope*.

Proboscis well developed ; palpi upturned, the 2nd joint reaching vertex of head, the 3rd joint short and blunt ; antennæ bipectinate, with short branches dilated at extremity and ending in a bristle ; tibiæ with the spurs short ; abdomen of male with ventral valve covering basal segments. Fore wing with vein 2 from near angle of cell and downcurved ; 3, 4, 5 well separated at origin ; 6 from upper angle ; 7, 8, 9, 10 stalked ; 11 from cell. Hind wing with the lower part of the cell very short, the discocellulars angled just above median nervure ; veins 2 and 4 on a long stalk ; 3 and 5 absent ; 6, 7 from upper angle.

A. Antennæ wholly yellow	*xanthocera*.
B. Antennæ black, the tips yellow	*chalciope*.

457. Nyridela xanthocera.

Gymnelia xanthocera, Wlk. vii. 1603 (1856) ; Druce, Biol. Centr.-Am., Het. i. p. 58 ; Kirby, Cat. Het. p. 140.

♂. Head, thorax, and abdomen black ; antennæ pale yellow ; palpi, head, thorax above, and legs with patches of metallic blue ; abdomen with slight metallic blue dorsal and lateral series of spots ; the ventral valve edged with white and followed by two white spots and a sublateral pair ; wings hyaline, the veins and margins rather broadly black. Fore wing with some blue at base ; an oblique black band from costa across discocellulars to tornus ; the terminal band expanding slightly to apex. Hind wing with the terminal band expanding below vein 2.

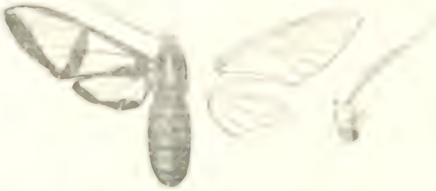

Fig. 104.—*Nyridela xanthocera*, ♂. $\frac{1}{1}$.

♀. Abdomen with two pairs of sublateral white spots.

Hab. Mexico, Jalapa (*Trujillo*), Vera Cruz (*H. H. Smith*) ; Guatemala (*Champion, Rodriguez*) ; Costa Rica (*Underwood*) ; Panama, Chiriqui, Godman-Salvin Coll. *Exp.* 44 millim. Type † in Mus. Oxon.

458. Nyridela chalciope.

Isanthrene chalciope, Hubn. Zutr. Ex. Schmett. iii. p. 20, ff. 469, 470 (1827) ; Kirby, Cat. Het. p. 139.

Glaucopis acroxantha, Perty, Del. Anim. Art. p. 156, pl. 31. f. 4 (1834) ; Kirby, Cat. Het. p. 139.

♂. Head, thorax, and abdomen black ; antennæ yellow at tips ;

palpi, head, tegulæ, thorax above, and legs with patches of blue scales; fore coxæ white; abdomen with dorsal and lateral series of metallic blue-green spots; the ventral valve with white patches at sides, and two white points beyond it; wings hyaline, the veins and margins rather broadly black. Fore wing with some metallic blue at base; an oblique medial black band from costa across discocellulars to tornus; the terminal band slightly dilated towards apex. Hind wing with the terminal band slightly dilated towards apex and tornus.

♀. Abdomen with sublateral series of white spots.

Hab. Cuba; Colombia, Bogota (*Buckley*), 1 ♀; Brazil, 2 ♂. *Exp.*, ♂ 44, ♀ 50 millim.

Genus **LEUCOTMEMIS.**

Type.
Leucotmemis, Butl. Journ. Linn. Soc., Zool. xii. p. 391 (1876)... *latilinea.*

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd short; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs minute. Fore wing with veins 3, 4, 5 from angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked, 11 from cell. Hind wing with the lower part of cell short; veins 2 and 4 stalked, 3 from 2 near margin, or absent; 5 obsolete; 6, 7 from upper angle.

Sect. I. Abdomen of male with ventral valve.

459. Leucotmemis dorsalis.

Glaucopis dorsalis, Wlk. i. 177 (1854); Butl. Ill. Het. i. p. 33, pl. 11. f. 6 (1877); Kirby, Cat. Het. p. 145.

Black-brown; palpi orange; patagia striped with orange; legs yellowish white and brown; abdomen with broad lateral orange fascia and orange below. Fore wing with hyaline streak in cell and elongate patch below cell; a yellowish hyaline postmedial patch between veins 7 and 3, with the veins crossing it yellow. Hind wing with the basal area orange, conjoined to a yellowish hyaline patch beyond the cell, with the veins crossing it orange; the terminal black band expanding towards apex and tornus.

Hab. Amazons, Santarem (*Bates*), 2 ♂, 1 ♀, type. *Exp.* 20 millim.

Sect. II. Abdomen of male without ventral valve.

A. Abdomen crimson, the terminal segments black.
  a. Abdomen with two small white dorsal marks on 1st segment .... *varipes.*
  b. Abdomen with subdorsal series of opalescent spots.. *margariphera.*
B. Abdomen black, with lateral crimson stripes............ *pleuræmata.*
C. Abdomen without crimson markings.
  a. Abdomen orange, without segmental lines or dorsal fascia; the terminal segments black.
    a Wings with orange at base, and the veins on hyaline area orange.
      a^2. Patagia with orange patches.
        a^3. Metallic blue spots on terminal segments of abdomen and at base of fore wing .... *tenthredoides.*

b^3. Terminal segments of abdomen and base of fore wing without metallic blue spots ...... *hemileuca.*
b^2. Patagia without orange patches .... *intersecta.*
b^1. Wings without orange at base, the veins black.
a^2. Metathorax and base of hind wing black ...... *latilinea.*
b^2. Metathorax and base of hind wing orange..... *omole.*
b. Abdomen with quadrate orange subdorsal patches separated by black segmental bands and dorsal fascia.
a^1. Fore wing with the hyaline patch beyond the cell very large, extending down to vein 2 and to outer margin between veins 2 and 4.............. *torrida.*
b^1. Fore wing with the hyaline patch beyond the cell smaller, not extending beyond vein 3 or to outer margin .... *climacina.*
c. Abdomen black, with broad subdorsal orange bands. *emergens.*
d. Abdomen black, with slight orange lateral marks on 2nd segment, and blue spots towards extremity .... *ornatula.*
e. Abdomen black, with two white spots at base and dorsal, subdorsal, and sublateral golden green fasciæ .... *nexa.*
f. Abdomen black, with silvery green series of dorsal spots and lateral fasciæ .... *insperata.*

460. Leucotmemis varipes.

Glaucopis varipes, Wlk. i. 175 (1854); Butler, Ill. Het. i. p. 32, pl. 11. f. 5; Kirby, Cat. Het. p. 145.
Glaucopis albiventris, Wlk. i. 176 (1854); Kirby, Cat. Het. p. 145.

♂. Head and thorax black; frons and tegulæ edged with white; legs white and brown, the tarsi yellow; abdomen crimson, with white and brown subdorsal spots on basal segment, the extremity black; the ventral surface white; wings hyaline, the veins brown. Fore wing with the margins clouded with brown; a very large discocellular brown spot connected by a diffused patch with tornus; a large apical brown patch. Hind wing with the apex brown.

♀. Fore wing with the veins, costa, and inner margin yellow, the brown patches edged with yellow; hind wing with the veins yellow.

Hab. AMAZONS, Para, 3 ♂ (*Bates*), type *albiventris*; 2 ♀, type *varipes*. *Exp.* 24 millim.

461. Leucotmemis margariphera. (Plate VIII. fig. 5.)

Dycladia margariphera, Butl. Journ. Linn. Soc., Zool. xii. p. 393 (1876); Kirby, Cat. Het. p. 145.

♀. Head and thorax black; vertex of head and tegulæ with blue spots; patagia with small orange spots; legs yellow and black, with patches of blue on tibiæ; abdomen crimson, the basal segment black, with subdorsal blue points and lateral orange patches, the other segments with opalescent spots, the last three segments black, the ventral surface yellowish white; wings hyaline yellow, the veins yellow; the costa and inner margin streaked with yellow; a large black discoidal spot with patches of metallic blue on it; both wings with a large area at apex and smaller one at tornus black.

Hab. Amazons, Para, 1 ♀ (*Bates*), type. *Exp.* 34 millim.

462. **Leucotmemis pleuræmata**, n. sp. (Plate VIII. fig. 6.)

Black-brown; palpi white at base; tegulæ with crimson spots; coxæ yellowish white; abdomen yellowish laterally at base, then with broad lateral crimson stripes, the ventral surface yellowish white. Fore wing with wedge-shaped hyaline patch in cell, an elongate patch below the cell, and four streaks beyond the cell between veins 3 and 7. Hind wing hyaline; the veins and margins brown; a brown patch in cell; the terminal band expanding to apex and slightly below vein 2.

In the fore wing vein 2 arises rather near 3 and the end of the cell.

Hab. Brazil, 1 ♂ (*Dohrn*), type Zell. Coll., St. Catharina, 1 ♂. *Exp.* 26 millim.

463. **Leucotmemis tenthredoides.**

Ilipa tenthredoides, Wlk. vii. 1610 (1856); Kirby, Cat. Het. p. 145.

♂. Head black and blue; frons whitish; thorax orange; tegulæ blue and black; patagia tipped with black; abdomen orange, a black dorsal spot on 3rd segment and patch on 4th, the last three segments black with subdorsal blue spots. Fore wing hyaline, the margins black; a blue spot at base of costa; two orange streaks above inner margin, and a slight streak below costa; a black band from costa on discocellulars to inner margin, dentate inwards on median nervure, the veins beyond the cell orange; the terminal band very wide on apical area. Hind wing with the base orange; two hyaline streaks beyond the cell; the terminal black band wide on apical area and towards tornus.

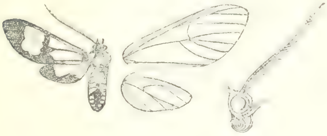

Fig. 105.
Leucotmemis tenthredoides, ♂. 1/1.

♀. Without the black spot on 3rd segment of abdomen; anal tuft orange; fore wing with a prominent orange streak below costa.

Hab. Amazons, Ega, 1 ♂, 1 ♀ (*Bates*); type † in Mus. Oxon. *Exp.* 30 millim.

464. **Leucotmemis hemileuca.** (Plate VIII. fig. 7.)

Dycladia hemileuca, Butl. Journ. Linn. Soc., Zool. xii. p. 393 (1876); Kirby, Cat. Het. p. 145.

♂. Head black, with a little blue on vertex; frons greyish;

thorax black; patagia orange, black at tips; abdomen orange, a dorsal black patch on 5th segment, the last two segments blue-black; underside of thorax and abdomen whitish. Fore wing hyaline; the veins and streaks below costa and on inner margin orange; the base black; a black band on discocellulars conjoined to the black on inner margin; the terminal band very wide on apical area. Hind wing orange, with three hyaline streaks beyond the cell, the lowest short; the terminal band wide on apical area and expanding towards tornus.

♀ with a discocellular black patch on fore wing not conjoined to costa and only slightly with the black on inner margin.

Hab. Amazons, Nauta, 1 ♂, 1 ♀ (*Degand*), type. *Exp.* ♂ 24, ♀ 26 millim.

165. Leucotmemis intersecta. (Plate VIII. fig. 27.)

[illegible] intersecta, Wlk. xxxi. 91 (1864); Kirby, Cat. Het. p. 145.

♀. Head and thorax black-brown; legs partly yellow; abdomen orange-red, the last three segments black, the ventral surface white. Fore wing black-brown, with orange streaks below base of costa and above inner margin; hyaline streaks in and below base of cell, and five streaks beyond the cell. Hind wing with the basal area yellow; a hyaline patch beyond the cell; a terminal black-brown band very wide on apical area and towards tornus.

Hab. Brazil, Ega, 1 ♀ (*Bates*), type. *Exp.* 22 millim.

166. Leucotmemis latilinea.

Glaucopis latilinea, Wlk. i. 167 (1854); Butl. Ill. Het. i. p. 32, pl. 11. f. 10; Kirby, Cat. Het. p. 143.

♂. Head and thorax black; shoulders with orange patches; fore coxæ white; abdomen yellow, the last three and part of fourth segment black with subdorsal patches of blue; wings hyaline, the veins and margins broadly black. Fore wing with blue spot at base of costa; a postmedial black band; the terminal band very wide on apical area. Hind wing with the terminal band wide towards apex, and expanding at tornus up to lower angle of cell.

Hab. Brazil, 1 ♂ type. *Exp.* 36 millim.

*167. Leucotmemis omole. (Plate VIII. fig. 26.)

Cosmosoma omole, Druce, P. Z. S. 1883, p. 377; Kirby, Cat. Het. p. 141.

♀. Head and thorax black; frons with white points; shoulders streaked with orange; metathorax orange; abdomen orange, the last four segments black with subdorsal blue patches. Fore wing hyaline, the veins, and margins rather broadly, black; a blue spot near base of costa; a large discoidal black lunule conjoined to a patch between bases of veins 2 and 3; the terminal band expanding widely at tornus and conjoined to the patch above vein 2, and on apical area. Hind wing with the base orange; a discoidal black lunule conjoined to the black area at tornus; a hyaline patch beyond the cell, with the veins crossing it black; the apical area black.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 30 millim. Type ♀ in Coll. Druce.

468. **Leucotmemis torrida.** (Plate VIII. fig. 28)

Glaucopis torrida, Wlk. i. 161 (1854); Kirby, Cat. Het. p. 146.

♀. Head orange, antennæ and a spot on vertex black; thorax orange, with black spots on tegulæ and stripes on patagia and vertex; abdomen orange, with blue-black segmental bands and series of short dorsal streaks, the last two segments black and blue; wings hyaline yellow. Fore wing with white spot at base of costa, the veins and margins black; an orange fascia above inner margin; a discocellular black bar conjoined to a black mark between the bases of veins 2 and 3; the terminal band expanding at apex and vein 2. Hind wing with the veins and inner area orange; a black patch in end of cell; the terminal band expanding towards costa and below vein 2.

Hab. Amazons, Tapajos, 1 ♀ (*Bates*), type. *Exp.* 36 millim.

469. **Leucotmemis climacina.** (Plate VIII. fig. 22.)

Dycladia climacina, Butl. Journ. Linn. Soc., Zool. xii. p. 394 (1876); Kirby, Cat. Het. p. 146.

♂. Head and thorax orange; palpi black at sides; antennæ black; patagia edged with black; femora banded with black; tarsi black; abdomen black, with large quadrate subdorsal orange patches and lateral spots except on terminal segments which are metallic blue; a ventral orange band on medial segments. Fore wing black; a white spot at base of costa; a hyaline yellow streak below costa; a wedge-shaped patch in cell; an elongate fascia below the cell, and an orange fascia above inner margin continued as a hyaline yellow streak; a hyaline yellow patch beyond the cell between veins 3 and 7, with the veins crossing it orange. Hind wing black, with hyaline yellow patch below the cell confluent with a patch beyond the cell between veins 2 and 7; the inner area orange.

Hab. Brazil, Espiritu Santo, 1 ♂ type. *Exp.* 34 millim.

470. **Leucotmemis emergens.** (Plate VIII. fig. 23.)

Eurata emergens, Wlk. xxxi. 92 (1864); Kirby, Cat. Het. p. 145.

♀. Head and thorax black; antennæ white at tips; patagia orange; abdomen black, with very broad subdorsal orange bands, the ventral surface whitish, the last two segments wholly black Fore wing hyaline; the base orange; the veins and margins black except the veins beyond the cell which are yellow; a discocellular black patch; the terminal band very wide on apical area and expanding at tornus. Hind wing with the base orange; a hyaline patch beyond the cell; the terminal black band wide on apical area and towards tornus.

Hab. Amazons, Ega (*Bates*), 2 ♂ types. *Exp.* 28 millim.

471. Leucotmemis ornatula. (Plate VIII. fig. 24.)

Glaucopis ornatula, Wlk. i. 163 (1854); Kirby, Cat. Het. p. 144.

♂. Black; tegulæ with blue spots; shoulders with orange patches; abdomen with slight lateral orange streaks on 2nd segment, and blue spots towards extremity. Fore wing with orange mark on base of costa followed by a blue spot; a wedge-shaped hyaline patch in cell and another below it, and a series of streaks beyond the cell between veins 2 and 7. Hind wing with two hyaline streaks, with a speck below them beyond the cell. Underside of both wings with the base orange.

Hab. Amazons, Para, 3 ♂ (*Bates*), type. *Exp.* 32 millim.

472. Leucotmemis nexa.

[illegible] nexa, Herr.-Schäff. Aussereur. Schmett. f. 264 (1854); Druce, Biol. Centr.-Am., Het. i. p. 44; Kirby, Cat. Het. p. 126.

Black; frons and neck white; vertex of head, vertex of thorax, tegulæ, and legs with patches of silvery blue; patagia, sides of thorax, and coxæ with white spots; abdomen with blue dorsal and white lateral spots on 1st segment; dorsal, subdorsal, and sublateral golden green fasciæ. Fore wing with white point at base of costa, followed by a blue point, then a short hyaline streak; a blue patch below base of median nervure; a hyaline white spot below middle of cell, and a patch beyond the cell between veins 7 and 3. Hind wing with hyaline spot below the cell usually present, and a spot beyond the cell varying much in size.

Hab. Mexico, Yucatan (*Gaumer*); Guatemala (*Champion, Rodriguez*); Costa Rica (*Underwood*), Godman-Salvin Coll.; Colombia, Santa Marta (*Bouchard*); Brazil, Santarem, Villa Nova (*Bates*). *Exp.* 38-42 millim. Type ♀ in Coll. Staudinger.

*473. Leucotmemis insperata. (Plate VIII. fig. 25.)

Pœcilosoma insperata, Wlk. vii. 1606 (1856); Kirby, Cat. Het. p. 141.

♀. Black; frons, vertex of head, tegulæ, shoulders, metathorax, and pectus with metallic blue patches; fore coxæ crimson behind; abdomen with metallic blue lateral patches on 1st segment; a dorsal series of silvery green spots and lateral fasciæ. Fore wing black, with somewhat clouded hyaline streaks in and below cell, and short streaks in the interspaces beyond it; a large discocellular spot.

Hind wing hyaline, the veins and margins broadly black; the terminal band expanding towards apex and tornus.

Hab. Amazons, Para (*Bates*), 1 ♀ type † in Mus. Oxon. *Exp.* 32 millim.

Genus COSMOSOMA.

	Type.
Cosmosoma, Hübn. Samml. Ex. Schmett. ii. (1827), non descr.	*auge.*
Cosmosoma, Harris, Amer. Journ. Sci. xxxvi. p. 317 (1839) ...	*auge.*
Lagaria, Wlk. i. 164 (1854), nec Dallas, Hem. 1852	*erythrarchos.*
Erruca, Wlk. i. 165 (1854)	*deyrolli.*
Ilipa, Wlk. i. 166 (1854)	*braconoides.*
Aristodæma, Wallengr. Vet.-Akad. Forhandl. xv. p. 136 (1858).	*hanga.*
Rezia, Kirby, Cat. Het. p. 149 (1892)	*erythrarchos.*

Proboscis well developed; palpi upturned, moderately scaled and reaching above vertex of head; antennæ bipectinate, with rather short branches dilated at extremity; tibiæ with the spurs short. Fore wing rather broad; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 2 and 4 stalked; 3 and 5 absent or 3 given off just before the margin; 6, 7 from upper angle.

Sect. I. Hind wing with the lower part of cell short, the upper discocellular oblique; veins 2 and 4 on a long stalk; palpi long.

A. Abdomen of male with a channelled ventral fan-shaped valve covering basal segments.
  a. Thorax and abdomen scarlet .... *demantria.*
  b. Thorax and 1st segment of abdomen scarlet .... *ignidorsia.*
  c. Thorax not scarlet.
    a^1. Legs scarlet.
      a^2. Abdomen without lateral patches of scarlet... *subflamma.*
      b^2. Abdomen with lateral patches of scarlet.
        a^3. Abdomen with the lateral scarlet bands not interrupted by triangular black and blue spots and ending at 4th segment...... *auge.*
        b^3. Abdomen with the lateral scarlet bands interrupted by triangular black and blue spots and extending to 6th segment ...... *sectinota.*
    b^1. Legs black, or yellow and black.
      a^2. Abdomen entirely scarlet .... *hector.*
      b^2. Abdomen scarlet or orange, with the extremity black.
        a^3. Thorax black .... *zurcheri.*
        b^3. Thorax yellow and black; wings with the veins of medial area yellow .... *semifulva.*
      c^2. Abdomen black, with lateral basal scarlet, crimson, or orange patches.
        a^3. Abdomen without white spots; dorsal and lateral blue spots and lateral scarlet streaks.. *impar.*
        b^3. Abdomen with white spots.
          a^4. Abdomen with the lateral basal patches and the basal inner area of fore and hind wings crimson.
            a^5. Abdomen without crimson subdorsal spots on 3rd segment .... *ordinale.*
            b^5. Abdomen with crimson subdorsal spots on 3rd segment, the lateral patches confined to 1st segment .... *erythrarchos* (♀).

b^4. Abdomen with lateral orange spots and the base of inner area of fore and hind wings orange.
  a^5. Thorax orange ... ... *xanthistis.*
  b^5. Thorax black, patagia with orange patches ... ... *hanga.*
d^4. Abdomen black, with white basal patch followed by two spots, and orange and crimson subterminal lateral patches; fore wing with crimson basal spot ... ... *leuconoton.*
e^4. Abdomen without lateral red, or orange or white dorsal spot.
  a^5. Abdomen black, with yellow segmental lines and blue patches between them.
    a^6. Antennæ yellow except at base ... ... *lycopolis.*
    b^6. Antennæ black.
      a^7. Fore wing with orange streaks above base of inner margin.
        a^8. Fore wing with orange streak below medial part of costa; frons black and white ... ... *cinctum.*
        b^8. Fore wing without orange streak below costa; frons orange and black.
          a^9. Markings of thorax and abdomen orange-red; palpi orange and black ... ... *[illegible].*
          b^9. Markings of thorax and abdomen pale yellow; palpi yellow ... ... *tarapotense.*
      b^7. Fore wing without orange streaks.
        a^8. Frons yellow; abdomen of female not orange at extremity ... ... *flavitarsis.*
        b^8. Frons black; abdomen of female orange at extremity ... ... *beatrix.*
  b^5. Abdomen black, without segmental yellow lines.
    a^6. Abdomen without white spots on basal segments, the extremity orange ... ... *salvini.*
    b^6. Abdomen with white spots on basal segments, the extremity black ... ... *quinquepuncta.*
  c^5. Abdomen yellow or orange-red, with black segmental lines enclosing blue patches.
    a^6. Fore wing without yellow streaks below costa and above inner margin ... ... *beatum.*
    b^6. Fore wing with yellow streaks below costa and above inner margin.
      a^7. Abdomen without white patches at base; the blue patches prominent ... *nigricornis.*
      b^7. Abdomen with white patches at base; the blue patches almost obsolete ... ... *sephela.*

474. Cosmosoma demantria. (Plate VIII. fig. 9.)

Cosmosoma demantria, Druce, A. M. N. H. (6) xv. p. 44 (1895).

Head black, with patches of metallic blue on frons and vertex; antennæ white at tips; thorax and abdomen scarlet, the former with dorsal black stripe and blue patch on metathorax; tegulæ and patagia with black and blue spots at base; abdomen with dorsal series of black and blue spots except on basal segment, black below, the valve of male white at sides; wings hyaline, the veins and margins black.

Fore wing with discocellular black spot; the terminal band very wide on apical area, and expanding at vein 2. Hind wing with the terminal band wide at apex and expanding towards tornus.

Hab. Dominica (*Eliott*), 2 ♂ 2 ♀. *Exp.* 48 millim. Type † in Coll. Druce.

475. Cosmosoma ignidorsia, n. sp. (Plate XVII. fig. 17.)

♂. Head and tegulæ black; antennæ white at tips; frons and tegulæ with metallic blue spots; thorax scarlet; shoulders with black and blue spots; legs black; abdomen with the 1st segment and lateral patches on 2nd scarlet, the remainder black with dorsal and lateral series of blue spots; the ventral valve with lateral white spots; wings hyaline, the veins and margins rather broadly black. Fore wing with basal scarlet streak above inner margin, the terminal band expanding widely to apex and slightly at tornus.

Hab. Brazil, Minas Geraës, 1 ♂ type. *Exp.* 40 millim.

476. Cosmosoma subflamma.

Glaucopis subflamma, Wlk. i. 159 (1854); Kirby, Cat. Het. p. 140.
Læmocharis panopes, Herr.-Schäff. Aussereur. Schmett. i. p. 243 (1854); Butl. Ill. Het. i. p. 31, pl. 12. f. 9.

♀. Black; frons, vertex of head and thorax, tegulæ and patagia metallic blue; thorax below scarlet; legs black, the femora and hind tibiæ and tarsi striped with scarlet; abdomen with dorsal series of metallic blue spots and lateral spots on 2nd segment; wings hyaline, the veins and margins black. Fore wing with the terminal band very broad on apical area and expanded at vein 2; streaks in cell and submedian interspace; hind wing with the terminal band wide at apex.

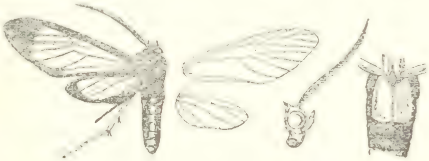

Fig. 106.—*Cosmosoma subflamma,* ♂. 1/1.

Hab. Brazil, 1 ♀ type. *Exp.* 42 millim. Type † *panopes* in Coll. Staudinger.

Subsp. 1. *lucia,* Schaus, J. N. Y. Ent. Soc. iv. p. 132 (1896).

Mid and hind femora, tibiæ and tarsi black; hind femora at extremity and tibiæ at base black; abdomen of male with the valve white.

Hab. Santa Lucia, 2 ♂ 1 ♀. Type † in Coll. Schaus.

477. Cosmosoma auge.

Sphinx auge, Linn. Syst. Nat. i. (2) p. 807 (1767); Druce, Biol. Centr.-Am., Het. i. p. 60; Kirby, Cat. Het. p. 141.
Cosmosoma omphale, Hübn. Samml. Ex. Schmett. ii. (1827); Harr. Amer.

Journ. Sci. xxxvi. p. 317; Clem. Proc. Acad. Sci. Philad, 1860, p. 544; Stretch, Zyg. & Bomb. N. Am. p. 153, pl. 7. f. 5; Smith, Ent. Am. i. p. 181.
Cosmosoma melitta, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 635, pl. 8. f. 3 (1877); Kirby, Cat. Het. p. 142.

Head black, with metallic blue on frons and vertex; antennæ white at tips; tegulæ black, with metallic blue spots, sometimes partly crimson; thorax and sides of first four segments of abdomen crimson, varying to orange; patagia fringed with black; legs crimson, slightly marked with black; abdomen black, with dorsal series of blue spots and lateral spots on terminal segments; the ventral valve of male with white lateral patches; the black of abdomen sometimes extending on dorsum to base and to vertex of thorax, sometimes not; wings hyaline, the veins and margins black. Fore wing usually with more or less developed discoidal patch; the terminal band expanding on apical area and at tornus, very widely on apical area of fore wing.

Hab. Florida, Grote and Zell. Colls.; Mexico (*Godman, H. H. Smith, Trujillo*); Costa Rica (*Rogers, Underwood*); Panama, Chiriqui (*Champion*), Godman-Salvin Coll.; St. Thomas; Jamaica (*Gosse*); Surinam, type + *melitta* in Coll. Staudinger; Brazil, São Paulo (*Jones*); Uruguay. *Exp.* 38–44 millim.

Larva: Dyar, Psyche, 1896, p. 414.

Eggs smooth, conoidal, with flat base; shining white tinged with yellow.

Larva mature: head yellow, ocelli black, mouth brown; body yellowish on somites [illegible], 4, 12, 14, [illegible] spiracles black, the 1st, 2nd, and 3rd series of warts normal, 4th behind spiracles, the 5th and 6th series normal; hair dense, fine, of even length, black and white; somites 5 and 11 with dense lateral tufts from warts of 3rd and 4th series, the black hairs plumed; on thoracic somites there is a larger wart above the stigmatic wart, with a few long hairs from it overhanging the head; on 2nd somite the cervical shield has two minute warts on each side, a wart at edge, and stigmatic and subventral warts. Food-plant, *Mikania scandens*.

Cocoon large, elliptical, of silk and hair, light yellowish mixed with the plumed black hairs.

Pupa rounded, the somites fixed; pale yellow, with the spiracles, eyes, and a row of dorsal marks black.

478. **Cosmosoma sectinota**, n. sp. (Plate VIII. fig. 10.)

Cosmosoma auge, Druce, Biol. Centr.-Am., Het. i. p. 60 (part).

Head black, with metallic blue on frons and vertex; antennæ white at tips; tegulæ black, with blue spots; thorax scarlet, the patagia fringed with black; legs scarlet, slightly marked with black; abdomen black, with subdorsal series of triangular scarlet patches except on last two segments, leaving dorsal and lateral triangular black patches with series of metallic blue spots on them; a series of scarlet spots on the lateral line; the ventral valve of male white; wings hyaline, the veins and margins black. Fore wing with discocellular spot; the terminal band very wide on apical area and expanding at tornus. Hind wing with theterminal band expanding at apex and tornus.

Hab. Mexico, Vera Cruz (*H. H. Smith*); Guatemala (*Champion*), type. *Exp.* 42 millim.

479. **Cosmosoma hector.**

Cosmosoma hector, Staud. Verh. zool.-bot. Ges. Wien, xxv. p. 120 (1875); Druce, Biol. Centr.-Am., Het. p. 60, pl. 7. f. 17; Kirby, Cat. Het. p. 141.

♀. Head and thorax black; antennæ white at tips; frons, vertex of head, and thorax with patches of metallic blue; thorax below and femora scarlet; abdomen bright scarlet; wings hyaline, the veins and margins black. Fore wing with discocellular spot; the terminal band very wide on apical area and expanding at vein 2. Hind wing with the terminal band expanding at apex and towards tornus.

Hab. Panama, Chiriqui, 1 ♀ Godman-Salvin Coll. *Exp.* 42 millim.

480. **Cosmosoma zurcheri.** (Plate VIII. fig. 19.)

Cosmosoma zurcheri, Druce, A. M. N. H. (6) xiii. p. 353 (1894); id. Biol. Centr.-Am., Het. ii. p. 345.

♂. Head and thorax black; antennæ whitish at tips; frons, vertex of head, and tegulæ with patches of metallic blue; patagia and metathorax fringed with metallic blue; thorax below and femora orange; abdomen orange; a black basal dorsal patch; the extremity black, with some metallic blue scales; the channelled valve fringed with white; wings hyaline, the veins and margins black; the terminal band very wide on apical area of fore wing, and expanding at apex of hind wing and tornus of each wing.

♀ with the thorax below and abdomen scarlet.

Hab. Costa Rica, Santa Clara, 1200 feet (*Zurcher*), 2 ♂ 1 ♀ Godman-Salvin Coll., type. *Exp.* 42 millim.

481. **Cosmosoma semifulva.**

Dycladia semifulva, Druce, Biol. Centr.-Am., Het. i. p. 62, pl. 8. f. 11 (1884); Kirby, Cat. Het. p. 144.

♂. Head black; frons white; thorax yellow, tegulæ and extremities of patagia black; legs with the end of femora and base of tibiæ and the tarsi black; abdomen yellow, the last three segments blue-black, the 4th from end deep black; wings hyaline. Fore wing with base black, produced along costa and inner margin; the margins and veins of medial area yellow; a discoidal black patch conjoined to the fascia on apical part of costa; the veins of outer area black; the terminal band expanding on apical area and at tornus. Hind wing with the cell and inner margin black; the veins of outer area and the termen near tornus yellow; a terminal black band narrowing from apex to vein 2.

Hab. Mexico, Orizaba, Jalapa, 1 ♂ Godman-Salvin Coll. *Exp.* 8 millim. Type in Coll. Staudinger.

182. Cosmosoma impar.

Glaucopis impar, Wlk. i. 163 (1854); Druce, Biol. Centr.-Am., Het. i. p. 69 (part), pl. 7. f. 20; Kirby, Cat. Het. p. 142.
Cosmosoma remota, Druce, Biol. Centr.-Am., Het. ii. p. 346.

Head black, with metallic blue markings on frons and vertex; thorax scarlet; tegulæ and patagia edged with black and with metallic blue points; legs black, coxæ scarlet; abdomen black, with lateral scarlet patches at base and lateral scarlet streaks on 2nd, 3rd, and 4th segments; a dorsal series of metallic blue spots and lateral spots on the terminal segments; the channelled valve of male fringed with white; wings hyaline, the veins and margins black. Fore wing with large discocellular black spot; a yellowish streak on basal half of inner area; the terminal band very wide on apical area and expanding at tornus. Hind wing with the terminal band expanding on apical area and at tornus.

Hab. Mexico, type, Jalapa (*Trujillo*); Guatemala (*Conradt*); Panama, Chiriqui (*Champion*), type *remota*, Godman-Salvin Coll. *Exp.* 46 millim.

183. Cosmosoma cardinale, n. sp. (Plate VIII. fig. 16.)

Black-brown; antennæ white at tips; tegulæ with white points; patagia with crimson patches; legs with white spots; abdomen with lateral patches of crimson at base, and dorsal and two lateral series of white points, the 1st dorsal spot large; ventral valve of male with a pair of terminal white spots; wings hyaline, the veins and margins black. Fore wing with crimson spot below base of median nervure and patch on basal part of inner margin followed by a whitish mark; a discocellular black patch; the terminal band very wide on apical area and expanding at tornus; cilia white at apex. Hind wing with the inner area brilliant crimson; the terminal band expanding slightly at apex and above tornus.

Hab. Brazil, São Paulo (*Jones*), 1 ♂, 1 ♀, type. *Exp.* 48 millim.

184. Cosmosoma erythrarchos.

Glaucopis erythrarchos, Wlk. i. 164 (1854); Kirby, Cat. Het. p. 149.
Laemocharis vulnerata, Herr.-Schäff. Aussereur. Schmett. i. f. 258 (1854); Butl. Ill. Het. i. p. 36, pl. 12. f. 2.

♀. Black-brown; antennæ white at tips; patagia streaked with crimson; tibiæ with terminal white spots; abdomen with subdorsal white streaks on 1st segment and crimson-red lateral patches; subdorsal red spots on 3rd segment; dorsal white points on the terminal segments and lateral and sublateral series; wings hyaline, the veins and margins black. Fore wing with crimson-red patch at base below the cell and streak on basal half of inner margin; a discoidal black spot; the terminal band very wide on apical area and dentate below vein 2. Hind wing with some white on basal part of costa; the inner margin red; the terminal band expanding slightly at apex and tornus.

Hab. Brazil, Rio Janeiro, 1 ♀ type. *Exp.* 52 millim.

485. Cosmosoma xanthistis, n. sp. (Plate IX. fig. 4.)

♀. Head black; antennæ white at tips; frons white at sides; tegulæ black; shoulders with white points; thorax and patagia fulvous orange; pectus and legs black, the latter with white points at base and end of tibiæ; abdomen black, with subdorsal orange-fulvous patches on first three segments, the terminal segments with dorsal white points; lateral and sublateral series of white points except on terminal segments; wings yellow hyaline, the veins and margins black. Fore wing with orange streak below basal half of costa and two above inner margin; the terminal band dentate at vein 2 and expanding very widely on apical area. Hind wing with the terminal band expanding towards apex and tornus.

Hab. Brazil, São Paulo, 1 ♀ type. *Exp.* 36 millim.

486. Cosmosoma hanga.

Læmocharis hanga, Herr.-Schäff. Aussereur. Schmett. f. 246 (1854); Kirby, Cat. Het. p. 142.

Aristodæma arauna, Wallengr. Wien. Ent. Mon. iv. p. 41 (1860).

Black-brown; antennæ white at tips; white points behind the eyes and two pairs on tegulæ; patagia with orange patches; legs spotted with white; abdomen with lateral orange patches at base and spots on 3rd and 4th segments, dorsal and lateral series of white points; the ventral valve of male with lateral white patches; wings hyaline, the veins and margins black. Fore wing with white basal point; an orange patch on basal area below the cell with oblique outer edge; the terminal band very wide on apical area and expanding at tornus; cilia white at apex. Hind wing with the base and inner area orange; the terminal band expanding at apex and tornus.

Hab. Brazil, São Paulo (*Jones*), Espiritu Santo, Rio Janeiro. *Exp.* 44 millim.

487. Cosmosoma leuconoton, n. sp. (Plate VIII. fig. 11.)

♀. Black-brown; antennæ white at tips; white spots at base of patagia and a white patch on metathorax; a white patch on 1st segment of abdomen and two spots on 2nd segment; orange and scarlet subdorsal patches on penultimate segment and blue spots on anal segment; wings hyaline, the veins and margins brown. Fore wing with crimson basal patch; a discocellular brown band; the terminal band very wide on apical area and expanding at tornus. Hind wing with the inner area brown; the terminal band expanding at apex.

Hab. Colombia, Papayan (*Rogers*), 1 ♀ type. *Exp.* 38 millim.

*488. Cosmosoma lycopolis.

Erruca lycopolis, Druce, P. Z. S. 1883, p. 375, pl. 39. f. 7; Kirby, Cat. Het. p. 133.

♂. Head, thorax, and abdomen black; antennæ orange except towards base; head, tegulæ, shoulders, and metathorax with patches of blue; pectus with pale yellow and blue patches; legs with blue patches, the extremities of tibiæ and the tarsi orange; hind coxæ yellow; abdomen with the dorsal yellow patches on 1st segment, the next three segments with yellow lines, the terminal segments with dorsal spots; subdorsal series of blue spots; the ventral valve edged with yellow and with sublateral patches beyond it; wings hyaline, the veins, and margins, narrowly black. Fore wing with orange streaks below costa and on inner margin; the terminal black line very slightly expanding towards apex. Hind wing with the terminal black line slightly expanding towards tornus.

Hab. ECUADOR, Sarayacu (*Buckley*). *Exp.* 36 millim. Type † in Coll. Druce.

489. Cosmosoma cinctum. (Plate VIII. fig. 12.)

Homœocera cincta, Schaus, P. Z. S. 1894, p. 225.

♀. Head, thorax, and abdomen black; antennæ at tips, lower part of frons, and basal joint of antennæ in front white; head behind eyes and upper edge of tegulæ yellow; vertex of head and tegulæ with patches of blue; patagia striped with orange; coxæ white; extremity of tibiæ and tarsi yellow; abdomen with dorsal white band on 1st segment, the other segments with orange dorsal bands with subdorsal blue patches between them, the first two segments with ventral white bands; wings hyaline, the veins and margins black. Fore wing with orange streak below medial part of costa and two streaks above basal part of inner margin; the terminal band expanding at apex and tornus. Hind wing with the terminal band expanding towards tornus, the inner area black.

Hab. VENEZUELA, Aroa, 1 ♀. *Exp.* 34 millim. Type † in Coll. Schaus.

*490. Cosmosoma gaza.

Isanthrene gaza, Schaus, P. Z. S. 1892, p. 274; id. Am. Lep. pl. i. f. 9.

♀. Head black; palpi orange below; upper part of frons orange, the lower part and back of head with blue spots; tegulæ black with blue spot and edged with orange; patagia striped black and orange; thorax black, spotted with blue; pectus and legs orange, marked with black; fore coxæ spotted with blue; abdomen with whitish band on 1st segment, the other segments orange banded with black and blue, each expanding into a pair of dorsal spots; ventral surface yellowish, the terminal segment black and orange; wings yellowish hyaline, the veins and margins narrowly black, the terminal band expanding into patches at apex of fore wing and tornus of hind wing. Fore wing with blue spot at base; two short orange streaks above base of inner margin; the costal interspace orange hyaline.

Hab. PERU? *Exp.* 42 millim. Type † in Coll. Schaus.

491. Cosmosoma tarapotense. (Plate VIII. fig. 14.)

Homœocera tarapotensis, Druce, A. M. N. H. (6) xx. p. 302 (1897).

Head and thorax black; palpi, frons, and vertex of head yellow;

tegulæ outlined with yellow; patagia streaked with yellow; legs black and yellow; abdomen black, with yellow segmental bands, the black areas enclosing a series of subdorsal blue patches; the ventral surface black, with the edge of ventral valve and a band beyond it yellow; wings hyaline, the veins and margins narrowly black. Fore wing with two slight orange streaks above base of inner margin; the terminal band expanding widely on apical area. Hind wing with the terminal band expanding above tornus.

Hab. Peru, Tarapoto, 1 ♂ 1 ♀. *Exp.* 38 millim. Type † in Coll. Druce.

492. Cosmosoma flavitarsis.

Glaucopis flavitarsis, Wlk. i. 158 (1854); Kirby, Cat. Het. p. 132.
Læmocharis scintillans, Herr.-Schäff. Aussereur. Schmett. i. f. 244 (1854); Butl. Ill. Het. i. p. 26, pl. 12. f. 4; Druce, Biol. Centr.-Am., Het. i. p. 51.

Head, thorax, and abdomen black; frons, edges of tegulæ, spots on thorax, stripes on patagia, sides of thorax, and marks on legs and hind tarsi, and segmental lines on abdomen yellow; metallic blue spots on vertex of head, tegulæ, thorax, fore legs, and a subdorsal series on abdomen; fore coxæ and inner sides of femora and edges of ventral valve white; abdomen yellow at extremity below; wings yellowish hyaline, the veins and margins narrowly black. Fore wing with blue spot at base; the terminal band expanding at apex. Hind wing with the terminal band dentate below vein 1.

Hab. Colombia, San Esteban, Zell. Coll.; Venezuela, 2 ♂ 1 ♀, types. *Exp.* 36 millim. Type † *scintillans* in Coll. Staudinger.

493. Cosmosoma beatrix.

Homœocera beatrix, Druce, Biol. Centr.-Am., Het. i. p. 51, pl. 6. f. 25 (1884); Kirby, Cat. Het. p. 132.

Head, thorax, and abdomen black; frons, vertex of head, tegulæ, patagia, thorax, metathorax, and legs with patches of metallic blue-green; abdomen with dorsal pale orange band on 1st segment and segmental lines on the next two; metallic blue-green subdorsal bands not quite meeting above; the extremity orange in female; the ventral valve of male white; wings hyaline yellow, the veins and margins narrowly black. Fore wing with the terminal band expanding towards apex; a metallic blue point at base. Hind wing with the inner area black.

Ab. 1. Tegulæ fringed with orange; abdomen with hardly a trace of metallic blue.

Hab. Costa Rica (*Van Patten*); Panama, San Felix (*Champion*); ab., Chiriqui (*Ribbe*), type, Godman-Salvin Coll. *Exp.* 34–40 millim.

494. Cosmosoma salvini.

Homœocera salvini, Butl. Journ. Linn. Soc., Zool. xii. p. 376 (1876); id. Ill. Het. i. p. 27, pl. 17. f. 4; Druce, Biol.-Centr. Am., Het. i. p. 52; Kirby, Cat. Het. p. 133.

♂. Head, thorax, and abdomen black; frons, vertex of head and thorax, tegulæ, patagia, legs, and sides of abdomen with large very brilliant metallic blue patches; coxæ white; the ventral valve edged with white; abdomen orange at extremity; wings yellowish hyaline, the veins and margins narrowly black. Fore wing with metallic blue basal patch; the apical area broadly black. Hind wing with the terminal band expanding at vein 1.

Hab. PANAMA, Obispo, 1 ♂ (*Salvin*), type. *Exp.* 40 millim.

*195. Cosmosoma? quinquepuncta.

Laemocharis quinquepuncta, Heyl. C.R. Soc. Ent. Belge, xxxiv. p. xiii (1890); Kirby, Cat. Het. p. 137.

Deep black; frons with white spots; palpi white in front; antennæ with the shaft white above near middle; tegulæ greyish at middle; prothorax with two white spots; metathorax with metallic blue patch; pectus with white patches; abdomen with dorsal and subdorsal blue-edged white patches on 1st segment, the 2nd segment with subdorsal spots followed by blue spots on the other segments; ventral valve white, the terminal segments with sublateral blue spots; wings hyaline, the veins, base, margins, and a broad discoidal band black; the terminal band expanding towards tornus of hind wing.

Hab. BRAZIL, São Paulo. *Exp.* 32–35 millim. This species is unknown to me.

196. Cosmosoma beatum. (Plate VIII. fig. 15.)

Homoeocera beata, Butl. Journ. Linn. Soc., Zool. xii. p. 376 (1876); Druce, Biol. Centr.-Am., Het. i. p. 32; Kirby, Cat. Het. p. 132.

♀. Head, thorax, and abdomen orange-red; palpi and antennæ black; vertex of head, tegulæ, meso- and metathorax and patagia with metallic blue-green and black patches; legs black with blue-green patches; abdomen with blue-green subdorsal patches on black segmental bands; underside of basal segments whitish; wings hyaline yellow, the veins and margins black. Fore wing with green spot at base; the terminal band expanding towards apex. Hind wing with the inner area black.

Hab. PANAMA; COLOMBIA, Santa Marta, 1 ♀ type (*Bouchard*). *Exp.* 38 millim.

197. Cosmosoma nigricornis. (Plate VIII. fig. 17.)

Zygaena nigricornis, Fabr. Mant. Ins. ii. p. 104 (1787); Kirby, Cat. Het. p. 133.

Homoeocera stretchii, Butl. Journ. Linn. Soc., Zool. xii. p. 375 (1876); Kirby, Cat. Het. p. 132.

♂. Head yellow, antennæ and tips of palpi black; vertex of head black with blue spots; thorax black above, yellow below; tegulæ yellow with black spots; patagia striped with yellow; metathorax with blue spots; sides of thorax and fore coxæ with black and blue patches; abdomen yellow, with black segmental bands, expanding and enclosing blue subdorsal spots; wings hyaline yellow, the veins and margins narrowly black. Fore wing with blue point at base and slight yellow streaks below base of costa and above inner margin, the terminal band expanding towards apex. Hind wing with the terminal band expanding at vein 1.

♀. Thorax yellow, with blue and black spots on meso- and metathorax; patagia edged with black; abdomen with narrow segmental lines and edges to the spots; fore wing with prominent yellow streaks below costa and above inner margin.

Hab. Colombia, Santa Marta, 1 ♂ 1 ♀ (*Bouchard*), type *stretchii*. *Exp.* 38 millim.

* 498. **Cosmosoma sephela.** (Plate VIII. fig. 18.)

Erruca sephela, Druce, P. Z. S. 1883, p. 375; Kirby, Cat. Het. p. 134.

♀. Head yellow; thorax yellow, the tegulæ and patagia edged with black; abdomen orange, with conjoined dorsal white patches on 1st segment, the next four segments with black bands with traces of subdorsal blue spots on them; wings hyaline, the veins, and margins rather narrowly, black. Fore wing with black point at base of costa; orange fasciæ below costa and on inner margin; the terminal black band slightly expanding towards apex. Hind wing with the terminal band expanding near tornus.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 34 millim. Type † in Coll. Druce.

B. Abdomen of male without ventral valve.
- *a*. Legs scarlet .... *fenestrata.*
- *b*. Legs not scarlet.
  - a^1. Thorax crimson .... *seraphina.*
  - b^1. Thorax black.
    - a^2. Fore wing with subcostal orange streak.
      - a^3. Fore wing with two orange streaks above inner margin extending nearly to middle.
        - a^4. Abdomen with two dorsal series of orange patches and complete bands on 4th and 5th segments.
          - a^5. Antennæ orange .... *xanthocera.*
          - b^5. Antennæ black...... .... *tigris.*
        - b^4. Abdomen without orange markings.
          - a^5. Abdomen with metallic blue markings.
            - a^6. Fore wing with the subcostal orange streak extending to apex .... *contractum.*
            - b^5. Fore wing with the subcostal orange streak not extending to apex ...... *gemmatum.*
          - b^5. Abdomen with white spots .... *deyrolli.*
      - b^3. Fore wing with single orange streak above base of inner margin........................... *saron.*
      - c^3. Fore wing without orange streak on inner area .... *bolivari.*
    - b^2. Fore wing without subcostal orange streak.
      - a^3. Frons white.
        - a^4. Abdomen with dorsal and lateral series of small metallic blue spots .... *pheres.*
        - b^4. Abdomen with dorsal and lateral series of large golden-green spots .... *metallescens.*

c^{4}. Abdomen wholly orange.
  a^{5}. Fore wing with large terminal black patch .... batesi.
  b^{5}. Fore wing with the terminal band expanding slightly to apex .... bromus.
d^{4}. Abdomen scarlet, the extremity black ... melanopera.
b^{3}. Frons black.
  a^{4}. Abdomen crimson above .... plutona.
  b^{4}. Abdomen yellow, the last three segments black .... determinatum.
  c^{4}. Abdomen black.
    a^{5}. Abdomen with golden-green spots at base followed by yellowish spots, the extremity with ridges of orange hair in ♂ .... xanthostictum.
    b^{5}. Abdomen with lateral metallic blue spots; the terminal band of fore wing evenly curved .... durca.
    c^{5}. Abdomen without metallic blue spots; the terminal band of fore wing very wide on apical area .... elegans.

499. Cosmosoma fenestrata.

Glaucopis fenestrata, Drury, Ill. Exot. Ent. i. pl. 25. f. 3 (1773); Stoll, Suppl. Cram. pl. 30. f. 5; Kirby, Cat. Het. p. 125.
Sphinx stereopes, Goeze, Beitr. iii. 2, p. 215 (1780).
Glaucopis rubripeda, Lucas, Sagra's Hist. Cuba, Ins. p. 658 (1857).

Black; palpi, legs, and abdomen below scarlet. Fore wing with hyaline spot in end of cell and larger spot below the end; a curved series of spots beyond the cell between veins 7 and 2. Hind wing whitish hyaline; the veins, cell, and costal area black; a black terminal band very wide on apical area and expanding below vein 2.

Hab. JAMAICA (*Rendall*), 1 ♂, 2 ♀; CUBA. *Exp.* 62 millim.

* 500. Cosmosoma seraphina.

Glaucopis seraphina, Herr.-Schäff. Aussereur. Schmett. f. 129 (1854); Kirby, Cat. Het. p. 142.

Head black; thorax crimson, with two black spots on mesothorax; abdomen black, with crimson lateral stripes and two short white dorsal streaks on 1st segment; wings hyaline, the veins and margins black; the terminal band expanding widely towards apex and tornus of each wing. Fore wing with crimson fasciæ on costa and inner margin extending to beyond middle.

Hab. AMAZONS, Pará. *Exp.* 26 millim. This species is unknown to me.

501. Cosmosoma xanthocera, n. sp. (Plate IX. fig. 5.)

Head black with metallic blue patches on frons and vertex; palpi and antennæ orange; tegulæ orange, with black and blue patches; patagia black with orange streak; thorax black, with orange streak on mesothorax and orange and blue patch on metathorax; pectus and legs orange; abdomen black, with dorsal and lateral orange spots and subdorsal metallic blue spots on first three segments; the 4th and 5th segments with orange bands (in ♂

reduced to a dorsal spot on 5th segment); the last three segments with subdorsal blue spots; the ventral surface with orange bands on first four segments and sublateral series of blue spots; wings hyaline, the veins and margins black. Fore wing with blue point at base of costa; a subcostal orange streak extending nearly to apex and two streaks above base of inner margin; the terminal band expanding at vein 2 and towards apex. Hind wing with some orange on costa and inner margin.

Hab. Amazons, Massauary, Villa Bella, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 42 millim.

502. Cosmosoma tigris.

Cosmosoma tigris, Schaus, P. Z. S. 1894, p. 226.

♂. Head, thorax, and abdomen black; palpi orange in front; frons, vertex of head, tegulæ, and metathorax marked with blue; tegulæ, patagia and thorax with patches of orange; pectus orange; legs striped with orange; abdomen with dorsal series of orange spots, becoming complete bands on 4th and 5th segments, the first three segments with lateral orange spots; lateral and sublateral series of metallic blue spots; wings hyaline, the veins and margins black. Fore wing with orange streak below costa extending to beyond middle, and two streaks above inner margin extending to middle; the terminal band expanding largely on apical area and slightly at vein 2. Hind wing with some orange on inner area; the terminal band expanding somewhat to apex and tornus.

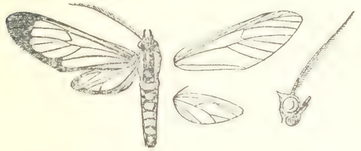

Fig. 107.—*Cosmosoma tigris*, ♂. $\frac{1}{1}$.

Hab. Venezuela, Aroa, 1 ♂. *Exp.* 36 millim. Type † in Coll. Schaus.

503. Cosmosoma contractum. (Plate VIII. fig. 20.)

Læmocharis contracta, Wlk. vii. 1609 (1856); Kirby, Cat. Het. p. 134.

♀. Head, thorax, and abdomen black; antennæ with the branches fulvous; frons, vertex of head, tegulæ, patagia, and metathorax with patches of metallic blue; abdomen with silvery-green subdorsal and sublateral spots on first three segments and blue subdorsal spots on last two; wings yellowish hyaline, the veins and margins black. Fore wing with orange subcostal streak extending to apex and two streaks above base of inner margin; the terminal band expanding on apical area, where it is suffused with orange.

Hab. Brazil, São Paulo, 1 ♀. *Exp.* 44 millim. Type † in Mus. Oxon.

504. Cosmosoma gemmatum.

Pheia gemmata, Butl. Journ. Linn. Soc., Zool. xii. p. 385 (1876); id. Ill. Het. i. p. 30, pl. 17. f. 5; Kirby, Cat. Het. p. 139.

♀. Black; frons, vertex of head, tegulæ, patagia, metathorax, sides of thorax, coxæ and femora with patches of brilliant metallic blue; abdomen with subdorsal metallic blue spots on 1st, 2nd, 3rd, 5th, 6th, and 7th segments, and sublateral spots on 2nd and 3rd segments. Fore wing hyaline; the veins and margins black; a metallic blue spot at base; an orange streak below costa to three-fourths of wing and shorter streaks in cell and above and below vein 1; the discocellulars slightly outlined with orange; the terminal black area very broad at apex and broad at tornus. Hind wing with orange on costa and inner margin; the terminal band broad at apex.

♂. Ventral surface of abdomen with paired yellow spots on 3rd segment.

Hab. PANAMA, Chiriqui, 1 ♂; COLOMBIA, Sta. Marta, 1 ♀ (*Bouchard*), type. *Exp.* 40 millim.

505. Cosmosoma deyrolli.

Glaucopis deyrollii, Wlk. i. 165 (1854); Butl. Ill. Het. i. p. 28, pl. 12. f. 6; Kirby, Cat. Het. p. 134.

♀. Head, thorax, and abdomen black; frons edged with white; abdomen with subdorsal and sublateral series of white spots, and a dorsal series on three penultimate segments; wings hyaline yellow, the veins and margins black. Fore wing with orange subcostal streak to near apex and two streaks above base of inner margin; the terminal band extending on apical area.

Hab. BRAZIL, Rio Grande, 2 ♀, type. *Exp.* 42 millim.

506. Cosmosoma saron.

Cosmosoma teuthras, Druce, Biol. Centr.-Am., Het. i. p. 59, pl. 7. f. 14 (1884); Kirby, Cat. Het. p. 140.
Cosmosoma saron, Druce, A. M. N. H. (6) xviii. p. 30 (1896); Biol. Centr.-Am., Het. ii. p. 346, pl. 71. f. 25.

Head, thorax, and abdomen black; frons white; vertex of head metallic blue; thorax with patches of metallic blue; abdomen with subdorsal and sublateral series of metallic blue spots, small subdorsal orange spots on 1st and 4th segments; wings yellowish hyaline, the veins and margins black. Fore wing with subcostal golden yellow streak reaching nearly to apex, and a basal spot above inner margin; the terminal band expanding at apex of fore wing.

Hab. PANAMA, Chiriqui, 1 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim. Type of *teuthras* ♂ in Coll. Staudinger.

*507. Cosmosoma bolivari. (Plate IX. fig. 3.)

Cosmosoma bolivari, Schaus, J. N. Y. Ent. Soc. vi. p. 138 (1898).

♂. Head and thorax black; tegulæ edged with orange; patagia orange; legs orange and black; abdomen orange, the 1st segment with dorsal black spot, the next three dorsally black edged with orange, the 5th edged with black, the last two segments black with the anal tuft orange; wings hyaline, the veins and margins narrowly black. Fore wing with subcostal orange streak; the base of inner area black; the apical area and a patch at tornus black. Hind wing with the apex and inner area black.

Hab. Ecuador, Bolivar (*M. de Mathan*). *Exp.* 26 millim. Type † in Coll. Schaus.

508. Cosmosoma pheres.

Sphinx pheres, Stoll, Pap. Exot. iv. pl. 382. C (1781); Kirby, Cat. Het. p. 140.

[illegible] Head, thorax, and abdomen black; frons, fore coxæ, and extremities of tarsi white; thorax with metallic blue patches above and at sides; abdomen with dorsal and lateral series of metallic blue spots; wings hyaline, the veins and margins black. Fore wing with the apical area widely black. Hind wing with the terminal band expanding somewhat at apex and tornus.

Hab. Brazil, Rio Janeiro, 1 ♂ 1 ♀. *Exp.* 28 millim.

509. Cosmosoma metallescens.

Læmocharis metallescens, Mén. Cat. Lép. Pét. ii. p. 138, pl. 14. f. 1 (1857); Kirby, Cat. Het. p. 140.

Læmocharis chalcosticta, Butl. Journ. Linn. Soc., Zool. xii. p. 387 (1876).

Black; frons, fore coxæ, and extremities of tarsi white; vertex of head and thorax with patches of metallic blue; abdomen with dorsal and lateral series of large metallic blue spots; a pair of lateral white spots on 2nd segment; wings hyaline, the veins and margins black. Fore wing with metallic blue spots at base below costa and above inner margin; the apical area very broadly black; the terminal band expanding at tornus. Hind wing with the terminal band expanding at apex and tornus.

Hab. Mexico, Tabasco (*H. H. Smith*), 1 ♀ Godman-Salvin Coll.; Amazons, Para, 1 ♂ 3 ♀, Villa Nova (*Bates*), 1 ♀ type *chalcosticta*. *Exp.* 32 millim.

510. Cosmosoma batesi. (Plate IX. fig. 7.)

Dycladia batesii, Butl. Journ. Linn. Soc., Zool. xii. p. 394 (1876); Kirby, Cat. Het. p. 146.

Head, thorax, and abdomen orange; palpi wholly yellow or black, or with 3rd joint black; frons white; vertex of head and antennæ black; wings hyaline, the veins and margins black. Fore wing with the base orange, extending slightly along costa and inner margin; a large black apical patch.

Ab. 1. Fore wing with small orange spot at base only.

Hab. Brazil, Para (*Bates*), São Paulo, type. *Exp.* 32 millim.

*511. Cosmosoma ? bromus.

Sphinx bromus, Cram. Pap. Exot. i. pl. 35. G (1775); Kirby, Cat. Het. p. 146.

♀. Head, thorax, and abdomen dull yellow; wings hyaline, the veins and margins black; the terminal band expanding towards apex of each wing.

Hab. Surinam. *Exp.* 36 millim. This species is unknown to me

512. **Cosmosoma melanopera**, n. sp. (Plate IX. fig. 6.)

♀. Head black; frons white; thorax and abdomen scarlet; patagia tipped with black; legs black and scarlet; abdomen black at extremity; wings hyaline, the veins and margins rather broadly black. Fore wing with scarlet spot at base; the terminal band expanding at tornus and very widely on apical area. Hind wing with the terminal band expanding towards apex.

Hab. Bolivia, San Jacinto, Bueyes (*Garlepp*), 1 ♀ type. *Exp.* 38 millim.

*513. **Cosmosoma plutona.** (Plate IX. fig. 8.)

Cosmosoma plutona, Schaus, P. Z. S. 1894, p. 225.

♂. Head and thorax black; antennæ white at tips; vertex of head and tegulæ with some blue; abdomen crimson above; wings hyaline, the veins and margins black. Fore wing with the base except at costa and a discoidal bar black; the costa more widely black from end of cell to apex. Hind wing with the terminal band dentate above tornus, the inner area black.

Hab. Brazil, Castro Paraña. *Exp.* 36 millim. Type † in Coll. Schaus

514. **Cosmosoma determinatum.** (Plate IX. fig. 13.)

Hypa determinata, Butl. Journ. Linn. Soc., Zool. xii. p. 391 (1876); Kirby, Cat. Het. p. 143.

♂. Head and thorax black; frons, vertex of head, tegulæ, metathorax, and legs with patches of metallic blue; abdomen orange-yellow, the last three segments black with lateral blue patches towards extremity; wings hyaline, the veins and margins black. Fore wing with metallic blue at base of costa; a black discocellular patch; the terminal band very broad on apical area and expanding towards tornus. Hind wing with the terminal band expanding on apica larea.

Hab. (Colombia, Cundinamarca, 1 ♂ type. *Exp.* 44 millim.

515. **Cosmosoma xanthostictum**, n. sp. (Plate IX. fig 21.)

Cosmosoma metallescens, Druce, Biol. Centr.-Am., Het. i. p. 58 (nec Mén.).

♂. Black; vertex of head, thorax above and at sides, and legs with patches of metallic blue scales; tarsi white at extremity; abdomen with lateral blue spots at base, followed by orange-yellow spots on 2nd and 3rd segments, a dorsal series of yellow and blue spots; wings hyaline, the veins and margins black. Fore wing with basal black patch with metallic blue spots on it; a discocellular band; the terminal band very wide on apical area and expanding at tornus. Hind wing with the terminal band expanding towards apex and tornus.

♀ with thick ridges of orange-fulvous hair on extremity of abdomen below.

Hab. Mexico, Tabasco (*H. H. Smith*); Guatemala, Las Mercedes (*Champion*), type; Panama, Chiriqui, Bugaba (*Champion*), Godman-Salvin Coll. *Exp.* 26–34 millim.

516. Cosmosoma durca. (Plate IX. fig. 23.)

Cosmosoma durca, Schaus, Journ. New York Ent. Soc. iv. p. 132 (1896).
? *Læmocharis nigripes*, Heyl. C.R. Ent. Soc. Belge, xxxiv. p. xiv (1890); Kirby, Cat. Het. p. 140.

Black; frons, vertex of head, tegulæ, patagia, thorax above and at sides with patches of metallic blue scales; tarsi white at extremities; abdomen with lateral patches of metallic blue scales; wings hyaline, the veins and margins rather broadly black. Fore wing with black basal patch with metallic blue spot on it; the terminal band of nearly even width throughout, but slightly expanding at apex and tornus of each wing.

Hab. Brazil, São Paulo, 1 ♂, 1 ♀ (*Jones*). *Exp.* 38 millim. Type † in Coll. Schaus.

517. Cosmosoma elegans. (Plate IX. fig. 12.)

Cosmosoma elegans, Butl. Journ. Linn. Soc., Zool. xii. p. 386 (1876); Kirby, Cat. Het. p. 140.

♂. Black; frons with two white points; vertex of head, tegulæ, patagia, and sides of thorax with metallic blue patches; tarsi white at extremities; wings hyaline, the veins and margins black; the terminal band very wide on apical area of fore wing, and expanding at tornus and at apex and tornus of hind wing.

Hab. Brazil, Espiritu Santo, 1 ♂ type. *Exp.* 40 millim.

Sect. II. Hind wing with the lower part of cell of normal length; veins 2 and 4 rather shortly stalked; palpi short.
A. Hind wing of male with the terminal area clothed with rough scales on underside.
a. Abdomen of male with narrow ventral valve covering basal segments.
a^1. Shoulders with crimson spots .... *oratha.*
b^1. Shoulders with white spots .... *orathidia.*

*518. Cosmosoma oratha.

Autochloris oratha, Druce, P. Z. S. 1893, p. 281.

♂. Black; frons white; tegulæ and metathorax with patches of blue; shoulders with crimson spots; fore coxæ with white patches; legs slightly streaked with blue; abdomen with traces of subdorsal blue fascia and a dorsal patch at extremity; the 1st segment with lateral crimson spots; the

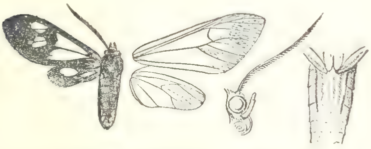

Fig. 108.—*Cosmosoma oratha*, ♂. 1/1.

ventral surface with brownish-white fascia. Fore wing with blue points at base; wedge-shaped hyaline patches in and below cell, the latter with its outer edge indented; elongate spots above veins 3, 4, and 6, and a slight streak below vein 6. Hind wing with hyaline streak below the cell and two beyond the cell above vein 4.

Hab. British Guiana (*Whiteley*). *Exp.* 32 millim. Type † in Coll. Druce.

*519. Cosmosoma orathidia. (Plate IX. fig. 25.)

Cosmosoma orathidia, Druce, A. M. N. H. (7) i. p. 405 (1898).

♂. Black; frons, spots on shoulders, and coxæ white; tegulæ, patagia, metathorax, and legs with metallic blue markings; abdomen with lateral scarlet patches on 1st segment and metallic blue spots on the others, the ventral valve white. Fore wing with wedge-shaped hyaline patches in and below cell, the latter indented on outer side; elongate spots between veins 3 and 7. Hind wing with elongate hyaline spot below cell, a small spot between veins 2 and 4, and patch beyond cell.

Hab. Nicaragua, Chontales (*Belt*), 1 ♂, type † in Mus. Oxon. *Exp.* 32 millim.

b. Abdomen of male without ventral valve.
  a^4. Fore wing with the costal and inner margins golden yellow to near termen .... *proton.*
  b^4. Fore wing with orange-brown streaks below costa and above inner margin, some orange-brown marks on terminal band .... *festivum.*
  c^4. Fore wing with slight orange streak below costa; no orange on terminal band .... *centrale.*

520. Cosmosoma proton.

Cosmosoma proton, Druce, A. M. N. H. (6) xiii. p. 171 (1894); id. Biol. Centr.-Am., Het. ii. p. 344, pl. 71. f. 19.

♂. Head, thorax, and abdomen black; antennæ white at tips; frons, vertex of head, thorax, and legs with patches of metallic blue; patagia orange-yellow; abdomen with dorsal and lateral series of metallic blue spots; wings hyaline. Fore wing with the costa and inner area orange-yellow to near termen; the median nervure and vein 1 yellow; an orange patch below end of cell between veins 2 and 4 conjoined to a patch below end of vein 2; a discoidal black spot; the veins of outer area black; the terminal band expanding evenly towards costa. Hind wing with the base yellow; the veins of outer area black; the terminal

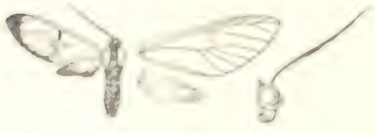
Fig. 109.—*Cosmosoma proton*, ♂. 1/1.

black band wide and nearly even throughout; the rough scales on underside hoary.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂ Godman-Salvin Coll., type. *Exp.* 30 millim.

521. Cosmosoma festivum.

Cosmosoma festiva, Wlk. i. 171 (1854); Druce, Biol. Centr.-Am., Het. ii p. 345; Kirby, Cat. Het. p. 141.

Cosmosoma aleus, Schaus, Ent. Am. v. p. 89 (1889); Druce, Biol. Centr.-Am., Het. ii. p. 344, pl. 71. f. 16; Kirby, Cat. Het. p. 142.

♂. Black; antennæ white at tips; frons and vertex of head with patches of metallic blue; tegulæ and patagia with orange patches; coxæ with patches of metallic blue; abdomen with subdorsal and lateral series of blue spots; wings hyaline, the veins and margins black. Fore wing with the base orange; orange streaks below costa and above inner margin to beyond middle; some blue scales on base of median nervure; a discoidal black patch; the terminal band very wide on apical area, running up to the cell between veins 2 and 3 and between bases of veins 3 and 4, and with a submarginal series of orange marks most distinct towards inner margin. Hind wing with the base orange; the terminal band expanding on apical area and towards tornus.

♀. Fore wing with the terminal band expanding at tornus, but not running up to the cell between veins 2 and 3.

Hab. Mexico, Yucatan (*Gaumer*); Guatemala, Vera Paz (*Conradt*); Costa Rica (*Underwood*), Godman-Salvin Coll.; Honduras, ♀ type. *Exp.* 30 millim. Type † *aleus* in Coll. Schaus.

522. Cosmosoma centrale.

Glaucopis centralis, Wlk. i. 171 (1854); Butl. Ill. Het. i. p. 31, pl. 11. f. 9; Kirby, Cat. Het. p. 141.

Læmocharis bura, Herr.-Schäff. Aussereur. Schmett. f. 239 (1854); Kirby, Cat. Het. p. 145.

♂. Black; frons, vertex of head, tegulæ, thorax above, and legs with patches of metallic blue; antennæ white at tips; patagia orange, fringed with black; abdomen with lateral orange patches at base and subdorsal series of blue spots; wings hyaline, the veins and margins black. Fore wing with fine subcostal orange streak to beyond middle and an orange patch extending along inner margin to middle; a discocellular band; an orange spot between bases of veins 2 and 4 connected by a black patch with the terminal band, which is very wide on apical area. Hind wing with orange patch on inner area; the terminal band expanding at apex and tornus.

♀ with the ventral surface of abdomen orange except at extremity; no orange and black between veins 2 and 4 of fore wing

Hab. Brazil, Rio Janeiro, 1 ♂ type; São Paulo, 2 ♀ (*Jones*). *Exp.* 30 millim. Type † *bura* in Coll. Staudinger.

B. **Hind wing of male without rough scales on terminal area below.**

a. **Fore wing with crimson-centred discocellular spot** ...... [illegible]

b. **Fore wing without crimson-centred discocellular spot.**

a^1. Both wings with crimson on margins ...... [illegible]

b^1. Wings without crimson on margins.

a^2. Fore wing with orange or scarlet subcostal fascia.

a^3. Abdomen with lateral orange or scarlet patches, no dorsal stripe.

a^4. Tegulæ and patagia fringed with black; fore wing with large black discoidal patch ...... *cæcum.*

b^4. Tegulæ and patagia wholly red; fore wing with the discoidal patch small or obsolete... *telephus.*

b^3. Abdomen with scarlet dorsal stripe.

a^4. Fore wing with the orange fascia above inner margin extending well beyond middle ...... *achemon.*

b^4. Fore wing with the orange fascia above inner margin not reaching middle .... *hypocheilus.*

c^3. Abdomen with no orange or scarlet patches.

a^4. Tegulæ and vertex of thorax orange red.

a^5. Fore wing with orange fasciæ below costa and on inner area to beyond middle ..... *admotum.*

b^5. Fore wing with orange fascia below base of costa only .... *consolatum.*

b^4. Tegulæ and vertex of thorax black.

a^5. Fore wing with slight orange streak below costa; underside of both wings without orange subcostal streak ...... [illegible]

b^5. Fore wing with prominent orange streak below costa; underside of both wings with orange subcostal streak.

a^6. Patagia streaked with orange ...... [illegible]

b^6. Patagia black ...... [illegible]

d^3. Abdomen with five yellow bands ...... [illegible]

b^2. Fore wing without orange or scarlet subcostal fascia.

a^3. Thorax orange red ...... [illegible]

b^3. Thorax golden yellow.

a^4. Abdomen orange-yellow, with black band and metallic blue spots on each segment.

a^5. Fore wing with the apical area broadly black ...... [illegible]

b^5. Fore wing with the termen narrowly black throughout ...... [illegible]

b^4. Abdomen yellow, with the extremity black.

a^5. Abdomen with the last segment only black ...... [illegible]

b^5. Abdomen with the last three segments black .... [illegible]

c^4. Abdomen entirely yellow ...... [illegible]

c^3. Thorax orange with black patches; abdomen with the extremity black.

a^4. Abdomen with paired subdorsal black and blue patches on 2nd, 3rd, and 4th segments... [illegible]

b^4. Abdomen with dorsal black patches on 1st four segments ...... [illegible]

d^3. Thorax black.

a^4. Abdomen scarlet; the base and extremity black ...... [illegible]

b^4. Abdomen pale yellow.

a^5. Abdomen with the extremity yellow.

a^6. Fore wing with two white points at base. *tengyra.*

    - a^6. Fore wing without white points at base... *hercyna.*
  - b^5. Abdomen with the extremity black.
    - a^6. Fore wing with large discoidal black patch .... *braconides.*
    - b^6. Fore wing without discoidal patch ...... *stibostictum.*
- c^4. Abdomen black.
  - a^5. Patagia and abdomen with orange patches. *harpalyce.*
  - b^5. Patagia and abdomen without orange patches.
    - a^6. Abdomen with conjoined lateral crimson patches on basal segments.
      - a^7. Abdomen with dorsal and subdorsal series of white spots; wings with the hyaline patches large..................... *regia.*
      - b^7. Abdomen with the dorsal and subdorsal spots blue; wings with the hyaline patches much smaller .... *bogotense.*
    - b^6. Abdomen with paired basal crimson spots.
      - a^7. Abdomen with lateral orange spots on terminal segments; fore wing hyaline yellow...................................... *intensum.*
      - b^7. Abdomen without orange spots; fore wing hyaline .... *ladan.*
    - c^6. Abdomen with one dorsal crimson spot at base.. *stryma.*

523. Cosmosoma teuthras.

Glaucopis teuthras, Wlk. i. 168 (1854); Butl. Ill. Het. i. p. 31, pl. 13. f. 5; Druce, Biol. Centr.-Am., Het. i. p. 60; Kirby, Cat. Het. p. 142.

Head black, with metallic blue on frons and vertex; thorax scarlet, black below with lateral patches of metallic blue; abdomen black, with lateral basal patches of scarlet and dorsal and subdorsal series of metallic blue spots meeting on dorsum at base and extremity; wings hyaline, the veins and margins black. Fore wing with crimson fascia below costa, reaching to well beyond middle, the base scarlet, and a scarlet fascia below vein 1 to beyond middle; a large black-edged crimson discocellular spot; the terminal blackish band broad and occupying the whole apical area. Hind wing with the base scarlet, running outward along costa and inner margin; the terminal band expanding on apical area and near tornus.

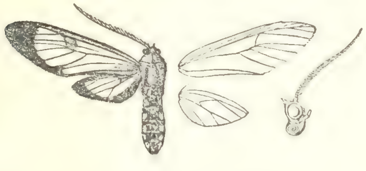

Fig. 110.—*Cosmosoma teuthras*, ♂. $\frac{1}{1}$.

Hab. PANAMA, Bugaba (*Champion*), Godman-Salvin Coll.; COLOMBIA, Zell. Coll.; VENEZUELA, type. *Exp.* 40–44 millim.

Subsp. 1. *restrictum*, Butl. Journ. Linn. Soc., Zool. xii. p. 389 (1876); Kirby, Cat. Het. p. 142.

The scarlet on inner area of fore wing not reaching middle, and the subcostal fascia slender.

Hab. BRAZIL, Santarem (*Bates*), 1 ♂ type.

Subsp. 2. *cingulatum*, Butl. Journ. Linn. Soc., Zool. xii. p. 389 (1876); Druce, Biol. Centr.-Am., Het. i. p. 60; Kirby, Cat. Het. p. 142.

With the scarlet fascia on inner area of fore wing extending to near tornus.

Hab. Mexico (*Forrer, Trujillo, Schumann, H. H. Smith*), Yucatan (*Gaumer*); Guatemala (*Champion*); Costa Rica (*Underwood*), Godman-Salvin Coll.; Veragua, type.

Subsp. 3. *erubescens*, Butl. Journ. Linn. Soc., Zool. xii. p. 389 (1876); Kirby, Cat. Het. p. 142.

With the markings slightly more crimson in tone; the fascia on inner area of fore wing reaching tornus; the discoidal spot smaller.

Hab. Brazil, type, Zell. Coll.; São Paulo (*Jones*).

*524. Cosmosoma cruenta.

Glaucopis cruenta, Perty, Del. Anim. Art. p. 157, pl. 31. f. 8 (1834); Kirby, Cat. Het. p. 147.

♀. Head and thorax black-brown; antennæ white towards tips; vertex of head and tegulæ with paired white points; patagia streaked with crimson; abdomen with broad subdorsal crimson fasciæ on first three segments, the other segments black, with dorsal, lateral, and sublateral series of white points. Fore wing hyaline; the veins and margins black; crimson fasciæ below costa and above inner margin, and the terminal band, which expands at tornus and widely towards apex, suffused with crimson, especially on its inner edge. Hind wing with the veins black; the basal, costal, and inner areas crimson; a hyaline patch beyond the cell; a terminal black band with crimson on its inner edge expanding towards apex.

Hab. Amazons. *Exp.* 34 millim. In Mus. Oxon.

525. Cosmosoma cæcum, n. sp.

Cosmosoma impar, Druce, Biol. Centr.-Am., Het. i. p. 60 (part), id. ii. p. 345, pl. 71. f. 22 (nec Wlk.).

Head black, with metallic blue on frons and vertex; thorax scarlet; tegulæ and patagia fringed with black; pectus black, with patches of metallic blue on sides and on fore coxæ; abdomen black, with lateral scarlet patches at base and subdorsal and sublateral patches of metallic blue; two ventral orange spots before last segment; wings hyaline, the veins and margins black. Fore wing with scarlet fasciæ from base below costa and above inner margin to near termen; a large black discocellular spot; the terminal band very wide on apical area and expanding at tornus. Hind wing with some scarlet on inner area; the terminal band expanding on apical area and at tornus.

Hab. Mexico (*Trujillo*); Costa Rica (*Underwood*), type; Guatemala (*Rodriguez*); Panama, Chiriqui (*Champion*), Godman-Salvin Coll. *Exp.* 44 millim.

526. Cosmosoma telephus.

Glaucopis telephus, Wlk. i. 170 (1854); Herr.-Schäff. Aussereur. Schmett. i. f. 242; Kirby, Cat. Het. p. 142.
Cosmosoma pyrrhostethus, Butl. Journ. Linn. Soc., Zool. xii. p. 388 (1876); Kirby, Cat. Het. p. 142.
Cosmosoma coccineum, Butl. Journ. Linn. Soc., Zool. xii. p. 388 (1876); Kirby, Cat. Het. p. 142.

♂. Head black, with metallic blue on frons and vertex; thorax scarlet, with black and blue patch on metathorax; abdomen black, subdorsal scarlet basal patches with blue spot between them, and a subdorsal series of blue spots; wings hyaline, the veins and margins black. Fore wing with the base scarlet, a streak on costa to beyond middle and on inner margin to middle; a black discocellular patch; the terminal band very wide on apical area and expanding at tornus. Hind wing with scarlet streak on inner margin; the terminal band expanding at apex and tornus.

♀ without the black and blue spot on metathorax; the discocellular patch of fore wing reduced.

Hab. Colombia, 1 ♂, type *pyrrhostethus*; Venezuela, 3 ♀, type; Brazil, Espiritu Santo, type *coccineum*, the abdomen of which does not belong to it. *Exp.* 44 millim.

527. Cosmosoma achemon.

Zygæna achemon, Fabr. Spec. Ins. ii. p. 162 (1781); Kirby, Cat. Het. p. 141.
Euchromia tyrrhene, Hübn. Zutr. Ex. Schmett. iii. p. 23, ff. 483–484 (1827).
Cosmosoma voltumna, Druce, A. M. N. H. (6) xx. p. 303 (1897).

♂. Head black, the frons and vertex metallic blue; antennæ white at tips; thorax orange-red, black below; legs with patches of blue; abdomen black, with dorsal red stripe and subdorsal series of metallic blue spots; wings hyaline, the veins and margins black. Fore wing with orange-red basal patch, and streaks below costa and above inner margin running nearly to termen; an orange-red patch edged with black below end of cell between veins 2 and 4; the terminal band very wide on apical area and expanding at tornus. Hind wing with some red at base; the terminal band expanding at apex and tornus.

♀ with the dorsal red stripe very broad and the ventral surface red; no red patch between veins 2 and 4 of fore wing; hind wing sometimes with some red on inner edge of terminal band above tornus.

Hab. Jamaica (*Gosse*, *Martin*); Haiti (*Tweedie*); Brazil, Santarem (*Bates*). *Exp.*, ♂ 28, ♀ 34 millim. Type † *voltumna* in Coll. Druce.

528. Cosmosoma hypocheilus, n. sp. (Plate IX. fig. 27.)

♂. Head black, with some metallic blue on vertex; antennæ white at tips; thorax scarlet above, black below; legs with metallic blue on coxæ; abdomen orange-scarlet, with lateral black bands with series of metallic blue spots on them, meeting at extremity and approximated at base of dorsum, with paired black patches below and the terminal segments black; wings hyaline, the veins and margins black. Fore wing with fine scarlet streaks below basal three-fourths of costa; the base scarlet, emitting a short streak along inner margin; a discoidal black spot; a black patch more or less completely filling up the interspaces between veins 2 and 4; the apical area very widely black. Hind wing with some scarlet at base; a black patch in cell; the apical and inner areas black.

♀ with the black patch between veins 2 and 4 of fore wing very much reduced or absent.

Hab. W. INDIES, St. Vincent, 3 ♂ 3 ♀ (*H. H. Smith*), type. *Exp.* 30 millim.

529. Cosmosoma admotum.

Læmocharis admota, Herr.-Schäff. Aussereur. Schmett. f. 241; Kirby, Cat. Het. p. 141.
Læmocharis confinis, Herr.-Schäff. Aussereur. Schmett. f. 255 (1854).

♂. Head black, with patches of metallic blue scales on frons and vertex; antennæ white at extremities; thorax orange-red, patagia edged with black; metathorax and legs with metallic blue patches; abdomen black, with subdorsal and sublateral series of metallic blue spots; wings hyaline, the veins and margins black. Fore wing with the base orange-red; streaks below costa and above inner margin; the terminal band very wide on apical area and running up between veins 2 and 3 to the cell, and with a red streak on it. Hind wing with the terminal band expanding at apex and tornus.

Ab. 1. *confinis*. Fore wing without red on the black patch between veins 2 and 3.

♀ without the black and red patch between veins 2 and 3 of fore wing.

Hab. BRAZIL, Pernambuco, Bahia, Espiritu Santo. *Exp.* 32–36 millim. Type † ♀ and *confinis* ♂ in Coll. Staudinger.

*530. Cosmosoma consolatum. (Plate IX. fig. 26.)

Pseudomya consolata, Wlk. vii. 1601 (1856); Kirby, Cat. Het. p. 138.

♀. Head black, with metallic blue patches on frons and vertex; thorax orange-red; abdomen black, with subdorsal and sublateral series of metallic-blue spots; wings hyaline, the veins and margins black. Fore wing with the base orange and a slight streak below base of costa; the terminal band expanding widely towards apex and at tornus. Hind wing with the terminal band expanding towards apex and slightly at tornus.

Hab. BRAZIL. *Exp.* 30 millim. 1 ♀ type † in Mus. Oxon.

531. Cosmosoma remotum. (Plate IX. fig. 22.)

Glaucopis remota, Wlk. i. 170 (1854); Kirby, Cat. Het. p. 141.

♀. Black; antennæ white at tips; frons, vertex of head, tegulæ, thorax above, and legs with patches of metallic blue scales; abdomen with subdorsal and sublateral series of metallic blue spots; wings hyaline, the veins and margins black. Fore wing with orange-red basal spot and fine streaks below costa and above inner margin; a discocellular black lunule; the terminal band expanding, and with patches of orange-red on apical area and at tornus. Hind wing with the terminal band expanding at apex and tornus.

♂ with the terminal band much wider at apex and tornus; on fore wing with no orange-red on apical area, and the black running up below vein 2 to the cell.

Hab. VENEZUELA, 1 ♂ 1 ♀, type. *Exp.* 32 millim.

532. Cosmosoma eumele. (Plate IX. fig. 28.)

Loxophlebia eumelis, Druce, P. Z. S. 1883, p. 376; Kirby, Cat. Het. p. 135.

♀. Head, thorax, and abdomen black; antennæ white at tips; patagia streaked with orange; frons and metathorax with patches of metallic blue; abdomen with dorsal blue spots on first two segments and subdorsal and sublateral series; wings hyaline, the veins and margins rather narrowly black. Fore wing with prominent orange streak below costa and two above inner margin, the lower extending to beyond middle; the terminal band expanding somewhat towards apex and with some orange on its inner side near apex and tornus. Hind wing with the inner area black. Underside of both wings with subcostal orange streaks.

Hab. ECUADOR, Intaj (*Buckley*); BRAZIL, Casa Branca, 1 ♀; BOLIVIA, Songo, 1 ♂. *Exp.* 34 millim. Type † in Coll. Druce.

533. Cosmosoma annexum.

Læmocharis annexa, Herr.-Schäff. Aussereur. Schmett. f. 257 (1854); Kirby, Cat. Het. p. 141.

♂. Black; vertex of head and tegulæ with patches of blue; abdomen with subdorsal series of blue spots; wings hyaline, the veins and margins rather broadly black. Fore wing with orange subcostal streak expanding towards apex; two streaks at base of inner area; an orange patch between veins 2 and 4; the terminal band of both wings expanding widely on apical area.

Hab. BRAZIL, Rio Janeiro, Casa Branca, 1 ♂. *Exp.* 30 millim. Type † in Coll. Staudinger.

534. Cosmosoma ethodæa.

Cosmosoma ethodæa, Druce, A. M. N. H. (6) iv. p. 84 (1889); Biol. Centr.-Am., Het. ii. p. 344, pl. 71. f. 20; Kirby, Cat. Het. p. 140.

♀. Head black; frons whitish; antennæ with the basal joints below and extremities white, some blue on vertex of head; thorax golden yellow; tegulæ black and blue; patagia edged with black; thorax black below, with lateral white patches; abdomen black, with five golden-yellow bands; subdorsal white spots on 1st segment, some metallic blue between the bands and at extremity, the 2nd segment fringed with white below. Fore wing hyaline yellow, the veins and margins black; an orange fascia below costa to near apex, and fasciæ above basal half of inner margin and vein 1; a discoidal black patch; the terminal band very broad on apical area and running up below vein 2. Hind wing with some orange at base; a discoidal black patch conjoined to the large expansion of the terminal band at tornus; a hyaline patch on disc crossed by the black veins and edged by orange above; apical area black.

Hab. Mexico, Atoyac, Vera Cruz (*H. H. Smith*), 1 ♀ Godman-Salvin Coll., type. *Exp.* 38 millim.

535. Cosmosoma advenum.

Cosmosoma advena, Druce, Biol. Centr.-Am., Het. i. p. 59, pl. 7. f. 15 (1884), Kirby, Cat. Het. p. 141.

♂. Head black and white; thorax orange-red, the vertex fuscous; abdomen black, with orange-red subdorsal stripes nearly meeting on vertex and not reaching extremity; ventral surface orange-red except the terminal segments. Wings hyaline, the veins and margins black. Fore wing with slight red streak at base of inner margin; a black discocellular patch; the terminal band very wide on apical area and expanding towards tornus. Hind wing with red streak on inner margin; the terminal band expanding on apical area and at tornus.

Hab. Mexico, Jalapa (*Trujillo*); Guatemala, Vera Paz (*Champion*), type, Godman-Salvin Coll. *Exp.* 36 millim.

536. Cosmosoma scitum. (Plate IX. fig. 9.)

Hyela scita, Wlk. vii. 1611 (1856); Kirby, Cat. Het. p. 143.
Pœcilosoma hilaris, Wlk. xxxi. 88 (1864), Kirby, Cat. Het. p. 134.

♀. Head, thorax, and abdomen orange-yellow; antennæ black; vertex of head, tegulæ, and metathorax black, with blue spots; patagia fringed with black; abdomen with black dorsal bands on each segment, with subdorsal blue spots on them; wings hyaline yellow, the veins and margins black; the terminal band expanding on apical area and below vein 2 of each wing; inner area of hind wing orange.

Hab. Amazons, Ega, 3 ♀ (*Bates*), type *hilaris*. *Exp.* 34 millim. Type † in Mus. Oxon.

537. Cosmosoma vesparium.

Glaucopis vesparia, Perty, Del. Anim. Art. p. 157, pl. 31. f. 9 (1834); Kirby, Cat. Het. p. 134.
Isanthrene odyneroides, Wlk. vii. 1604 (1856); Kirby, Cat. Het. p. 134.

♂. Head and thorax yellow; vertex of head, tegulæ, and metathorax with black and blue patches; thorax striped with black;

abdomen fulvous yellow, with segmental black lines and subdorsal series of blue spots, the first four segments anteriorly edged with white; wings yellowish hyaline, the veins and margins narrowly black.

Hab. AMAZONS, Villa Nova (*Bates*), 1 ♂, type † ♀ *odyneroides* in Mus. Oxon. *Exp.* 34 millim.

538. Cosmosoma pudicum. (Plate IX. fig. 14.)

Cosmosoma pudica, Druce, A. M. N. H. (6) xiii. p. 353 (1894); Biol. Centr.-Am., Het. ii. p. 345.

♂. Head black; frons with some white; thorax and abdomen pale golden yellow; legs and extremity of abdomen black; wings hyaline, the veins and margins black. Fore wing with the base yellow; a discocellular black spot; the terminal band wide at apex and expanding at vein 2. Hind wing with the inner margin and apical area black.

Hab. COSTA RICA, Santa Clara 1200 feet (*Zurcher*), 1 ♂ type Godman-Salvin Coll. *Exp.* 44 millim.

*539. Cosmosoma nelea.

Cosmosoma nelea, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 635, pl. 8. f. 4 (1877); Kirby, Cat. Het. p. 143.

Head and tegulæ black; frons, spots on neck, and coxæ white; thorax and abdomen yellow, the last three segments black; legs brown; wings hyaline, the veins and margins black, the terminal band expanding widely on apical area of both wings and at tornus of hind wing. Fore wing with white point at base of costa.

Hab. SURINAM. Type † in Coll. Staudinger. *Exp.* 36 millim.

*540. Cosmosoma evadnes.

Sphinx evadnes, Stoll, Pap. Exot. iv. pl. 357. A (1781); Kirby, Cat. Het. p. 144.

Head, thorax, and abdomen orange-yellow; antennæ and legs black; wings hyaline, the veins and margins rather broadly black. Fore wing with black discoidal lunule; the terminal band expanding at apex of both wings and at tornus of fore wing.

Hab. SURINAM. *Exp.* 30 millim. This species is unknown to me.

*541. Cosmosoma biseriatum. (Plate IX. fig. 16.)

Cosmosoma biseriatum, Schaus, J. N. Y. Ent. Soc. vi. p. 138 (1898).

♂. Head black, frons with blue patches; tegulæ black, with blue spots; patagia orange, edged with black; thorax orange, meso- and metathorax with black patches, the latter with blue spot; legs black, the coxæ and base of femora orange; abdomen orange, with dorsal black and blue patch on 1st segment and lateral black and blue bands on three following segments; the terminal segments black, with lateral blue bands, the ventral surface with black band on 2nd segment. Fore wing hyaline, the veins and margins very widely black; an orange patch below base of cell; a large rounded discoidal black patch conjoined to costa; the terminal band expanding widely on apical area and at tornus. Hind wing black; the base orange, with irregular outer edge; the interspaces below end of cell and beyond it hyaline, leaving the terminal area broadly black and expanding at apex.

Hab. ECUADOR, Bolivar (*M. de Mathan*). *Exp.* 40 millim. Type † in Coll. Schaus.

*542. Cosmosoma dorsimacula. (Plate IX. fig. 15.)

Cosmosoma dorsimacula, Schaus, J. N. Y. Ent. Soc. vi. p. 138 (1898).

♀. Head black; thorax orange; patagia fringed with black on outer side towards extremity; meso- and metathorax with round black spots; legs black, fore coxæ with white patches; abdomen orange, the first four segments with dorsal black spots, the last two segments black; wings hyaline, the veins, and margins rather broadly, black. Fore wing with round black discoidal spot extending to costa; the terminal band expanding widely on apical area and at tornus. Hind wing with the apical and inner areas black.

Hab. ECUADOR, Bolivar (*M. de Mathan*). *Exp.* 40 millim. Type † in Coll. Schaus.

*543. Cosmosoma? juanita.

Cosmosoma juanita, Neum. Can. Ent. xxvi. p. 335 (1894).

Head and thorax black; palpi yellowish; patagia edged with white; legs red, the coxæ white; abdomen bright red, the 1st and terminal segments and anal tuft black; wings hyaline. Fore wing with the veins and very broad borders expanding on apical area black. Hind wing with narrower black borders.

Hab. CUBA. *Exp.* 23 millim. This species is unknown to me.

544. Cosmosoma tengyra.

Glaucopis tengyra, Wlk. i. 167 (1854); Kirby, Cat. Het. p. 143.
Laemocharis fulviventris, Mén. Cat. Lep. Pet. ii. p. 141, pl. 14. f. 5 (1857); Kirby, Cat. Het. p. 143.

Head and thorax black-brown; frons, shoulders, vertex of thorax, fore coxæ, and legs with patches of white; abdomen yellow; wings hyaline, the veins and margins black-brown. Fore wing with two white points at base; the terminal band very wide on apical area. Hind wing with the terminal band expanding towards apex, the inner margin brown.

Hab. AMAZONS, Para, 1 ♂ 2 ♀ (*Bates*), type. *Exp.* 32 millim.

545. Cosmosoma hercyna.

Læmocharis hercyna, Druce, Biol. Centr.-Am., Het. i. p. 55, pl. 7. f. 6 (1884); Kirby, Cat. Het. p. 137.

Black; abdomen orange-yellow; wings hyaline; the veins and margins black; the terminal band expanding at apex and above tornus of each wing.

Hab. MEXICO, Atoyac, Vera Cruz (*Schumann*); NICARAGUA, Chontales (*Belt*), type Godman-Salvin Coll. *Exp.* 28 millim.

546. Cosmosoma braconoides.

Glaucopis braconoides, Wlk. i. 166 (1854); Butl. Ill. Het. i. p. 32, pl. 11. f. 15; Druce, Biol. Centr.-Am., Het. ii. p. 346; Kirby, Cat. Het. p. 143.

♂. Head and thorax black-brown; head with white points between the antennæ and above the eyes; abdomen pale yellow, with dorsal series of slight dark marks, the last three segments brown; wings hyaline, the veins and margins black-brown. Fore wing with two white points at base; a discocellular brown lunule; the terminal band very wide on apical area and expanding at vein 2. Hind wing with the terminal band expanding at apex; the inner area brown.

Hab. MEXICO; HONDURAS, 1 ♂ type. *Exp.* 42 millim.

547. Cosmosoma stibostictum. (Plate IX. fig. 11.)

Ilipa stibosticta, Butl. Journ. Linn. Soc., Zool. xii. p. 391 (1876); Druce, Biol. Centr.-Am., Het. i. p. 61; Kirby, Cat. Het. p. 143.

Head and thorax black; frons white; vertex of head and thorax with white spots; fore coxæ white; abdomen yellow, the last three segments black; wings hyaline, the veins and margins black. Fore wing with two white points at base; the terminal band very wide on apical area and expanding at tornus. Hind wing with the terminal band wide at apex.

Ab. 1. Head, thorax, and coxæ without white patches; fore wing without white points at base.

Ab. 2. Head and thorax without white spots on vertex; patches of metallic blue on vertex of head and thorax and black segments of abdomen; fore wing with metallic blue spot replacing the outer white speck.

Hab. PANAMA, Bugaba, Veragua (*Champion*), Godman-Salvin Coll.; COLOMBIA, Cundinamarca, type and ab. 1, Bogota (*Vergara*), ab. 2. *Exp.* 38 millim.

548. Cosmosoma harpalyce.

Cosmosoma harpalyce, Schaus, P. Z. S. 1892, p. 275; id. American Lep. pl. i. f. 11.

♂. Black-brown; neck with white points; patagia with orange patches; abdomen with lateral tufts of orange hair at base and lateral streaks on next three segments; the medial segments orange below; wings hyaline, the veins and margins brown. Fore wing with two white points at base; a discocellular brown spot; the terminal band very wide on apical area and expanding at tornus. Hind wing with the inner area brown; the terminal band expanding at apex.

Hab. Brazil, Rio Janeiro, 1 [illegible]. *Exp.* 44 millim.

549. Cosmosoma regia. (Plate IX. fig. 10.)

Marissa regia, Schaus, P. Z. S. 1894, p. 227.
Eunomia nicippe, Druce, A. M. N. H. (6) xx. p. 303 (1897).

♀. Head and thorax black; antennæ at tips, frons, and pectus white; vertex of head with patches of metallic blue; tegulæ and metathorax with blue and white spots; patagia with white patches; coxæ and extremities of femora and tarsi white; abdomen with conjoined crimson lateral patches on first three segments, on 1st segment almost meeting dorsally, on 2nd leaving subdorsal and dorsal, and on 3rd a dorsal blue and white spot, the other segments with dorsal and subdorsal series of white spots and a sublateral series. Fore wing black, with some metallic blue at base; a short hyaline streak below base of costa and a spot below base of cell; a patch in end of cell and an elongate patch below the cell and vein 2; a series of elongate postmedial patches between veins 7 and 3 and a slight streak below middle of vein 3. Hind wing hyaline; a discocellular black spot with some metallic blue on it, the terminal area black, expanding towards apex and tornus.

Hab. Venezuela, Aroa, 1 ♀; Peru, type† *nicippe* in Coll. Druce. *Exp.* 36 millim. Type† in Coll. Schaus.

*550. Cosmosoma bogotense.

Euchromia bogotensis, Feld. Reise Nov. pl. 102. f. 32 (1874); Kirby, Cat. Het. p. 122.

♂. Head, thorax, and abdomen black; frons white; tegulæ, patagia, and thorax with patches of brilliant blue, the patagia with slight white streaks; pectus crimson, with white patch in front; coxæ white; legs streaked with blue; abdomen with lateral crimson fasciæ on first three segments, formed of conjoined patches and almost meeting dorsally on 1st segment; dorsal and subdorsal series of blue points; sublateral white points on terminal half; wings black. Fore wing with the base brilliant blue, extending along inner margin almost to middle; a short hyaline streak below costa near base, and a small spot below cell; a quadrate hyaline patch in end of cell, and large round spot below end of cell; a postmedial hyaline band between veins 3 and 7 formed by patches between the veins. Hind wing with small hyaline spot below base of cell and a rounded patch beyond the cell between veins 2 and 6.

Hab. Colombia, Bogota, 1 ♂ type† in Coll. Rothschild. *Exp.* 36 millim

551. Cosmosoma intensum.

Glaucopis intensa, Wlk. i. 159 (1854); Butl. Ill. Het. i. p. 30, pl. 12. f. 11; Kirby, Cat. Het. p. 139.

♂. Black; vertex of head, tegulæ, patagia, mesothorax, thorax at side, and femora with brilliant metallic blue patches; small orange spots at base of patagia; fore coxæ white; abdomen with paired tufts of crimson scales on 1st segment, and subdorsal patches of metallic blue scales on the other segments, the last three segments with lateral orange spots, the first four segments white below; wings yellowish hyaline, the veins and margins black. Fore wing with black patches at base and apex. Hind wing with the inner area hyaline white; the terminal band white towards apex and tornus.

Hab. HONDURAS, 1 ♂ type. *Exp.* 30 millim.

552. Cosmosoma ladan.

Dycladia ladan, Druce, A. M. N. H. (6) xviii. p. 31 (1896); Biol. Centr.-Am., Het. ii. p. 348, pl. 72. f. 2.
Pheia intensa, Druce, Biol. Centr.-Am., Het. i. p. 57, pl. 7. f. 16 (nec Wlk.).

♀. Black-brown; tegulæ and bases of patagia with crimson spots; vertex of head and thorax sometimes with a few blue scales; fore coxæ white; abdomen with two small tufts of magenta scales on 1st segment; the ventral surface white, the 1st segment with lateral patches of blue scales; the segments sometimes dorsally fringed with blue scales; wings hyaline, the veins and margins black, the terminal band broad towards apex and at tornus of each wing. Fore wing with more or less developed discoidal patch. Hind wing with some blue scales on the discoidal patch and on terminal band either towards apex or tornus; underside with the costal area streaked with metallic blue.

Hab. PANAMA, Chiriqui, 2 ♀ (*Champion*). *Exp.* 30 millim. Type † in Coll. Staudinger.

553. Cosmosoma stryma.

Læmocharis stryma, Druce, Biol. Centr.-Am., Het. i. p. 55, pl. 7. f. 5 (1884); Kirby, Cat. Het. p. 137.

♂. Black-brown; crimson patches at bases of patagia and on 1st segment of abdomen; tarsi white at extremities; wings hyaline, the veins and margins rather narrowly brown, the terminal band expanding at apices and towards tornus of hind wing; fore wing with discocellular lunule.

Hab. MEXICO, Orizaba; NICARAGUA, Chontales, 1 ♂ (*Belt*), type Godman-Salvin Coll. *Exp.* 22 millim.

Genus PŒCILOSOMA.

	Type
Pœcilosoma, Hübn. Verz. p. 126 (1827)	*chrysis.*
Agerocha, Hübn. Zutr. Ex. Schmett. iii. p. 10 (1827), non descr. ..	*eone.*

Proboscis well developed; palpi upturned, smoothly scaled, the 2nd joint reaching vertex of head, the 3rd obtuse; antennæ bipectinate, with moderate branches dilated at extremity and ending in a bristle, shorter in female; tibiæ with the spurs moderate. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9, 10 stalked. Hind wing with the lower part of cell short, the upper discocellular oblique; 2 and 4 on a long stalk; 3 given off from 2 just before the margin; 5 absent; 6, 7 from upper angle.

Sect. I. (*Pœcilosoma*). Abdomen of male with channelled ventral valve covering basal segments.

A. Thorax above and basal segment of abdomen orange-red	*chrysis.*
B. Thorax and basal segment of abdomen black (♀)	*nigerrimum.*
C. Thorax orange and black; abdomen orange, with black patches and the extremity black	*eusebia.*

554. Pœcilosoma chrysis.

Pœcilosoma chrysis, Hübn. Zutr. Ex. Schmett. ii. p. 8, ff. 211, 212 (1827); Kirby, Cat. Het. p. 143.
Cosmosoma megaspila, Wlk. xxxi. 90 (1864); Kirby, Cat. Het. p. 143.

♂. Black; antennæ white at tips; frons, vertex of head, tegulæ, and patagia spotted with metallic blue; thorax scarlet; patagia scarlet and black; abdomen with basal scarlet patch, a dorsal series of metallic blue spots, and lateral series on the last three segments, the ventral valve with lateral white patches; wings hyaline, the veins and margins black. Fore wing with the terminal band gradually widening to costa and dilated at tornus. Hind wing with the terminal band slightly widening to costa. Fore wing with discocellular black spot.

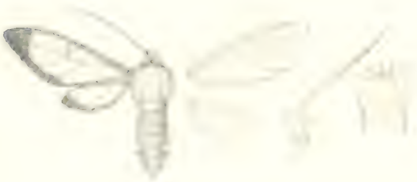
Fig. 111.—*Pœcilosoma chrysis*, ♂. 1/1.

Hab. Amazons, Ega, 1 ♂, 1 ♀ type *megaspila* (*Bates*). *Exp.* 40 millim.

555. Pœcilosoma nigerrimum. (Plate IX. fig. 17.)

Gymnelia nigerrima, Wlk. xxxi. 86 (1864); Kirby, Cat. Het. p. 134.

♀. Head, thorax, and abdomen black; antennæ with the branches fulvous; vertex of head and thorax with patches of metallic blue; abdomen with subdorsal series of metallic blue spots, the basal segments white below; wings hyaline yellow; the veins orange, with some black scales on them; the margins narrowly black.

Hab. AMAZONS, Ega, 2 ♀ (*Bates*), types. *Exp.* 32 millim.

*556. **Pœcilosoma eusebia.** (Plate IX. fig. 18.)

Isanthrene eusebia, Druce, P. Z. S. 1883, p. 373; Kirby, Cat Het. p. 131.

♀. Head and thorax orange and black; coxæ with blue and black patches, tarsi black towards extremity; abdomen orange, the 1st segment with a pair of small dorsal black spots, the 2nd to 5th segments with large blue-centred subdorsal black patches, slightly conjoined on 2nd and 3rd segments, the terminal segments black; wings hyaline yellow, the veins and margins narrowly black. Fore wing with orange streak on basal part of costa and inner margin; an apical black patch. Hind wing with black streak in end of cell and terminal black patch near tornus.

Hab. ECUADOR, Sarayacu (*Buckley*). *Exp.* 42 millim. Type † in Coll. Druce.

SECT. II. (*Agerocha*). Abdomen of male without ventral valve.

A. Abdomen with lateral crimson patches at base	*eone.*
B. Abdomen with broad lateral orange-red fasciæ; fore wing with red streak below costa	*marginatum.*

557. **Pœcilosoma eone.**

Agerocha eone, Hübn. Zutr. Ex. Schmett. iii. p. 10, ff. 417, 418 (1827); Kirby, Cat. Het. p. 147.

Head and thorax black; frons with white spot; metallic blue spots above eyes, on tegulæ, shoulders, and fore tibiæ; patagia streaked with white; pro- and metathorax below with white patches, mesothorax with crimson patch; coxæ and streaks on mid and hind femora white; abdomen black, with crimson and yellow marks on 1st segment, the next two segments with lateral crimson patches; lateral and dorsal series of white and metallic blue spots; two ventral series of white spots; wings hyaline, the veins and margins black. Fore wing with blue spot at base of costa and streak on inner margin; the black fascia on inner margin expanding into a spot before middle; a discoidal black spot; the terminal band expanding towards apex and tornus. Hind wing with the terminal band expanding towards apex and tornus.

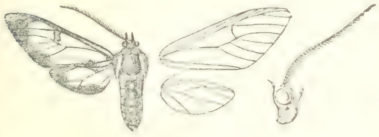

Fig. 112.—*Pœcilosoma eone*, ♂. $\frac{1}{1}$.

Hab. AMAZONS, Ega, Santarem, 1 ♂, 3 ♀ (*Bates*). *Exp.* 40 millim.

*558. Pœcilosoma marginatum. (Plate IX. fig. 19.)

Cosmosoma marginatum, Wlk. vii. 1613 (1856); Kirby, Cat. Het. p. 141.

♀. Black; antennæ white at tips; frons, vertex of head, and thorax with patches of metallic blue; palpi at base, tegulæ, patagia, pectus, and stripes on legs orange-red; abdomen with dorsal series of metallic blue spots and broad lateral orange-red fasciæ; a small ventral patch of red at base; wings hyaline, the veins, and margins broadly, black. Fore wing with scarlet streak below costa; a large black discocellular patch; the terminal band expanding widely towards apex. Hind wing with slight red streak on inner margin; the terminal band expanding towards apex.

Hab. Amazons (*Bates*), 1 ♂ type† in Mus. Oxon. *Exp.* 30 millim.

Genus MYSTROCNEME.

Type.

Mystrocneme, Herr.-Schäff. Aussereur. Schmett. f. 419 (1856), non [illegible]

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd obtuse; antennæ bipectinate, with moderate branches dilated at extremity; hind tibiæ with the spurs very short. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from just below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 2 and 4 on a moderate stalk; 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Abdomen of male with rather narrow ventral valve, with tufts of hair on each side of it; hind tibiæ of male very long and dilated, and with broad shallow groove from middle to extremity; fore wing with the area below end of cell and terminal area from apex to median fold roughly scaled on underside; hind wing with the terminal half roughly scaled and folded on underside.

559. Mystrocneme varipes.

Euchromia varipes, Wlk. i. 235 (1854); Kirby, Cat. Het. p. 125.
Mystrocneme gemmata, Herr.-Schäff. Aussereur. Schmett. f. 419 (1856).

♂. Black; frons, shoulders, and coxæ with white spots; tegulæ and legs with metallic blue patches; abdomen with dorsal and lateral white marks on 1st segment; broad subdorsal golden-green fasciæ; the ventral surface white. Fore wing with wedge-shaped hyaline patches in and below cell; a spot above vein 6 and two between veins 3 and 5. Hind wing with hyaline point beyond discocellulars.

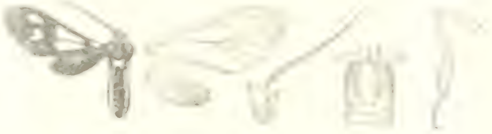

Fig. 113.—*Mystrocneme varipes*, ♂. ½.

Hab. Amazons, Para (*Bates*), 1 ♂ type. *Exp.* 32 millim.

SECT. II. Abdomen of male without ventral valve; hind tibiæ and wings normal.

560. **Mystrocneme atavia**, n. sp. (Plate IX. fig. 20.)

Head and thorax black; palpi at base, frons, vertex of head, meso- and metathorax, coxæ, and legs with patches of white; abdomen black, with subdorsal and lateral white spots on 1st segment, the other segments with broad subdorsal golden-green stripes, sublateral series of white points, and ventral fascia; wings black. Fore wing with hyaline streak below costa; a bifid wedge-shaped patch in cell; a fascia below the cell and elongate spots between veins 2 and 7, reduced and small in male. Hind wing with hyaline patch in cell; streak below cell and spots between veins 2 and 6.

Hab. UPPER AMAZONS, Fonteboa, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.*, ♂ 30, ♀ 32 millim.

Genus **DIXOPHLEBIA.**

Type.

Dixophlebia, Butl. Journ. Linn. Soc., Zool. xii. p. 397 (1876) .... *quadristrigata.*

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and obtuse; antennæ of male bipectinate, with short branches; tibiæ long, the spurs moderate; abdomen long, the terminal segment with lateral and anal tufts. Fore wing narrow towards base; veins 2 and 3 from a point near end of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell; veins 2–7 of male thickly fringed with long hair above. Hind wing narrow; the discocellulars angled; veins 2 and 4 strongly stalked; 3 absent; 5 from middle of discocellulars; 6, 7 from upper angle.

561. **Dixophlebia quadristrigata.**

Pseudomya quadristrigata, Wlk. xxxi. 82 (1864); Kirby, Cat. Het. p. 149.

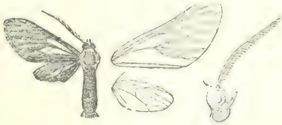

Fig. 114.
Dixophlebia quadristrigata, ♂. $\frac{1}{1}$.

♂. Black; thorax orange; abdomen with slight lateral streaks. Fore wing with hyaline streaks in and below the cell and slight streaks between the fringes of silky hair on veins of outer area. Hind wing with hyaline streak in and beyond lower angle of cell.

♀. Fore wing with short orange-red streaks at base below costa and on vein 1; hyaline patches in the interspaces beyond the cell.

Hab. BRAZIL, Ega, 1 ♂ (*Bates*), type; Minas Geraës 1 ♂, 1 ♀. *Exp.* 24 millim.

Genus **PHŒNIOSTACTA**, nov.

Type, *P. hæmatabasis.*

Proboscis well developed; palpi porrect, extending well beyond the frons; antennæ bipectinate, the branches dilated at extremity; tibiæ with the spurs moderate; hind tibiæ fringed with scales above. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from just below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 2 and 4 stalked; 3 and 5 absent; 6, 7 from upper angle.

562. Phœniostacta hæmatabasis, n. sp.

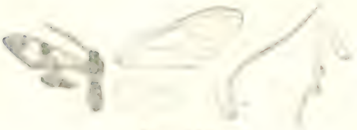

Fig. 111.

Phœniostacta hæmatabasis, ♂. ½.

♂. Black; shoulders with crimson spots; abdomen with two dorsal magenta spots on 1st segment and a series of metallic blue-green lateral spots. Fore wing with hyaline streaks in and below the cell and a series of four beyond the cell. Hind wing with the basal half semi-hyaline white traversed by the black veins; the terminal half black.

Hab. Brazil, Theresopolis, 1 ♂ type; Sta. Catharina, 1 ♀ in Coll. Staudinger. *Exp.*, ♂ 24, ♀ 34 millim.

Genus ICHORIA.

Type.

Ichoria, Butl. Journ. Linn. Soc., Zool. xii. p. 370 (1876) ...... *quadriguttta.*

Proboscis well developed; palpi porrect, reaching well beyond the frons; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs short; abdomen of male with ventral valve covering basal segments. Fore wing with vein 3 from before angle of cell; 4, 5 from angle, 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell moderate; veins 2 and 4 on a long stalk, 3 and 5 absent; 6, 7 from upper angle.

A. Fore wing with the interspaces hyaline .... *multigutta.*
B. Fore wing wholly black.
  a. Thorax and 1st segment of abdomen orange-red .... *demona.*
  b. Thorax and 1st segment of abdomen black.
    *a*¹. Neck crimson; abdomen with lateral crimson spots on
      1st segment .... [illegible]
    *b*¹. Shoulders with crimson spots; abdomen with two dorsal
      crimson spots on 1st segment .... *quadrigutta*
    *c*¹. Head, thorax and abdomen without crimson markings. *chalcomedusa.*

*563. Ichoria multigutta. (Plate IX. fig. 24.)

Lemoharis multigutta, Schaus, P. Z. S. 1894, p. 226.

♂. Head, thorax, and abdomen black; tegulæ and shoulders with magenta spots; fore coxæ white; abdomen with pair of dorsal magenta spots on 1st segment, the other segments with subdorsal lines, the 1st three segments with sublateral spots; the ventral valve with broad white band; wings hyaline, the veins and margins black. Fore wing with magenta streak at base; a discoidal black patch; both wings with the terminal band expanding on apical area and at tornus.

Hab. Venezuela, Aroa. *Exp.* 26 millim. Type † in Coll. Schaus.

*564. Ichoria demona.

Dycladia demona, Druce, Biol. Centr.-Am., Het. ii. p. 347, pl. 71. f. 29 (1897).

♀. Head black; antennæ white before tips; base of palpi crimson; frons and vertex of head blue; tegulæ, patagia, and thorax orange, with an opalescent crimson spot behind tegulæ, patagia edged with black at sides; coxæ and base of fore femora crimson; abdomen black, with orange dorsal patch on 1st segment followed by three subdorsal spots; dorsal and lateral series of blue spots; wings black. Hind wing with hyaline streaks below and in the interspaces beyond cell.

Hab. Mexico, Jalapa. *Exp.* 36 millim. Type † in Coll. Schaus.

565. Ichoria tricincta.

Læmocharis tricincta, Herr.-Schäff. Aussereur. Schmett. f. 300 (1855); Kirby, Cat. Het. p. 128.

Black-brown; neck and tegulæ crimson, with a dorsal black spot; a crimson streak below origin of wings; abdomen with lateral crimson spots and streak on basal segment; some crimson hair at origin of ventral valve and in anal tuft. Hind wing hyaline, the veins, and margins broadly, black, the terminal band expanding to apex.

Hab. Brazil, Petropolis (*Doer*), Rio Janeiro. *Exp.* 42 millim.

566. Ichoria quadrigutta.

Euchromia quadrigutta, Wlk. i. 245 (1854); Butl. Ill. Het. i. p. 25, pl. 10. f. 1; Druce, Biol. Centr.-Am., Het. i. p. 47; Kirby, Cat. Het. p. 128.

Black-brown; antennæ white at tips; frons, vertex of head, tegulæ, thorax above and at sides with patches of metallic green; crimson spots on shoulders and a dorsal pair on 1st segment of abdomen, which has two lateral series of green spots; some white on fore coxæ. Fore wing with green spot at base of costa. Hind wing with hyaline streaks in and below lower part of cell and on base of inner area, conjoined to a patch beyond the cell.

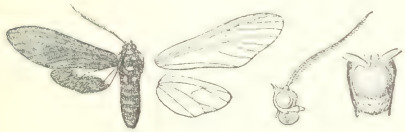

Fig. 116.—*Ichoria quadrigutta*, ♂. $\frac{1}{1}$.

Hab. Mexico, type; Guatemala; Costa Rica (*Van Patten*), Godman-Salvin Coll. *Exp.* 34 millim.

567. Ichoria chalcomedusa. (Plate X. fig. 1.)

Ichoria chalcomedusa, Druce, P. Z. S. 1893, p. 282.

♀. Black; antennæ white at tips; frons, tegulæ, shoulders, meso- and metathorax with metallic blue spots; abdomen metallic green, with subdorsal black streaks. Fore wing black, with slight greenish streaks on the veins especially the subcostal. Hind wing black, with hyaline streak below the cell above vein 4 and between veins 2 and 4.

Hab. Brazil, St. Catharina, 1 ♀; Castro Paraná, type † in Coll. Druce. *Exp.* 40 millim.

Genus PSEUDOMYA.

Type.
Pseudomya, Hübn. Verz. p. 124 (1827) .... *melanthus.*
Pseudoclanis, Druce, Biol. Centr.-Am., Het. i. p. 56 (1884) ...... *sithon.*

Proboscis well developed; palpi porrect, reaching well beyond the frons which is hairy; antennæ bipectinate, the branches dilated at extremity and ending in a bristle, of moderate length in male, very short in female; tibiæ with the spurs moderate; hind tibiæ very long, the extremity and the tarsal joints fringed with scales. Fore wing long and narrow; vein 3 from near angle of cell; 4, 5 separate at origin; 6 from upper angle; 7, 8, 9, 10 stalked, 11 from cell. Hind wing with veins 2 and 3 stalked from angle of cell, 3 given off just before the margin; 4 from angle; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; both wings with a veinlet in the cell.

A. Wings with orange spots .... *splendens.*
B. Wings with white spots .... *minima.*
C. Wings without spots.
  a. Abdomen with lateral crimson bands .... *sithon.*
  b. Abdomen without crimson bands.
    a¹. Metathorax with magenta patch.
      a². Abdomen with the basal segments, and a subdorsal fascia, whitish .... *picta.*
      b². Abdomen without whitish markings.
        a³. Back of head magenta .... *sanguiceps.*
        b³. Back of head black .... *melanthus.*
    b¹. Metathorax without magenta patch.
      a². Fore wing fuscous .... *menia.*
      b². Fore wing hyaline .... *translucida.*

*568. Pseudomya splendens. (Plate X. fig. 2.)

Mastigocera splendens, Druce, A. M. N. H. (6) ii. p. 240 (1888); Kirby, Cat. Het. p. 120.

♂. Black; antennæ orange-brown; tegulæ, pectus, and hind coxæ with orange patches; abdomen greenish black; orange lateral patches on 1st segment; a band on 3rd segment, incomplete dorsally and followed by four smaller spots, sublateral patches on 2nd segment. Fore wing greenish black, with small orange spots at base, a subbasal spot below cell, a quadrate spot below middle of cell; a small spot in upper end of cell; elongate spots above veins 3 and 4 and a point above 6. Hind wing with orange streaks below the cell and on inner area and a spot beyond the cell between veins 2 and 6.

Hab. Bahamas, New Providence (*Taylor*). *Exp.* 30 millim. Type ♂ in Coll. Druce.

569. Pseudomya minima. (Plate X. fig. 7.)

Hippola minima, Grote, Proc. Ent. Soc. Phil. vi. p. 298, pl. 3. f. 6 (1867); Kirby, Cat. Het. p. 122.

♂. Blue-black; palpi whitish at base; antennæ orange, the shaft dark above; tegulæ and patagia with white spots, hind tarsi white at tips; abdomen brighter blue, the 1st segment with large subdorsal white spots, the other segments except 2nd with lateral spots and the 2nd and 3rd segments with sublateral spots. Fore wing with some white scales at base; points below base and in end of cell; a subquadrate spot below middle of cell, two spots between veins 3 and 5 and a small spot above 6. Hind wing with elongate spot below base of cell and postmedial spots between veins 2 and 5 and above 5.

♀. Antennæ almost completely orange; hind wing without the spot below base of cell.

Hab. Florida, Miami (*Schaus*), ♂ ♀; Cuba. *Exp.* 24 millim.

Larva. Dyar, Psyche, 1897, p. 42.

Egg. Upright, conoidal, rather pointed above, narrowed at base, smooth, shining light ochre-yellow, with bright pearly reflections on side.

Larva, stage 1. Light orange, immaculate, smooth; setæ long, blackish; thorax with large subdorsal tubercle with small one below, stigmatal and subventral tubercles; abdomen, i and ii normal, iii with two long setæ, iv very small, v rather large; leg-plate with short setæ.

Stages 2, 3. Uniform orange; hair fine, in spreading tufts, light slate-grey.

Stage 4. Somite 2 retracted, three tubercles on thorax; skin orange, shaded dorsally with grey and with subventral stripe; iv absent except on somite 12; hairs barbuled.

Stage 5. Orange-red, with broad dorsal and sublateral dark stripes; spiracles whitish; tubercles i and ii on somites 5–12 with short, rather sparse brushes of hair. Food-plant *Myginda ilicifolia*, December.

Cocoon. Elliptical, of hair and silk.

Pupa. Light brown, smooth and shining.

570. Pseudomya sithon.

Pseudocharis sithon, Druce, Biol. Centr.-Am., Het. i. p. 57, pl. 7. f. 7 (1884); Kirby, Cat. Het. p. 138.

♂. Black-brown; antennæ white at tips; crimson patches at base of patagia; coxæ white; abdomen with broad lateral crimson bands. Both wings with more or less developed hyaline streaks in cell, in submedian interspace, and between bases of veins 2 and 5.

Ab. 1. With the markings orange-yellow instead of crimson.

Hab. Mexico, Guerrero, 8000 feet (*H. H. Smith*); Guatemala, S. Gerónimo (*Champion*), type Godman-Salvin Coll. *Exp.* 24 millim.

571. Pseudomya picta. (Plate X. fig. 24.)

Pseudomya picta, Schaus, P. Z. S. 1894, p. 226.

♂. Fuscous brown; frons edged with whitish; vertex of head, shoulders, and metathorax with patches of magenta; pectus with lateral whitish patches; abdomen with the first two segments and a sublateral streak whitish. Wings hyaline with a fuscous tinge, the veins and margins fuscous brown.

Hab. Venezuela, Aroa, 2 ♂. *Exp.* 24 millim. Type † in Coll. Schaus.

572. **Pseudomya sanguiceps**, n. sp. (Plate X. fig. 4.)

♂. Head, thorax, and abdomen black; back of head magenta; shoulders and metathorax with paired magenta spots; wings hyaline, the veins and margins black. Fore wing with somewhat diffused medial black band. Hind wing with terminal black band occupying half the wing at costa, narrowing to a point at tornus.

Hab. Panama, Chiriqui, 1 ♂ type. *Exp.* 18 millim.

573. **Pseudomya melanthus.**

Sphinx melanthus, Stoll, Pap. Exot. iv. pl. 367. C (1782); Kirby, Cat. Het. p. 139.
Glaucopis trigutta, Wlk. i. 145 (1854); Butl. Ill. Het. i. p. 29, pl. 7. f. 10; Kirby, Cat. Het. p. 137.

♂. Dark brown with a slight ferruginous tinge; magenta spots at base of patagia and on metathorax; fore coxæ and terminal half of abdomen below white. Fore wing semihyaline clouded with ferruginous brown, the veins and margins brown. Hind wing ferruginous brown.

Hab. Colombia, Bogota, 1 ♂, type *trigutta*; Surinam. *Exp.* 24 millim.

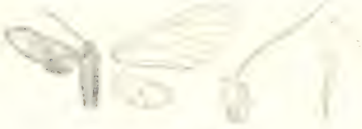

Fig. 117.
Pseudomya melanthus, ♂. ½.

574. **Pseudomya nænia.**

Pseudocharis nænia, Druce, Biol. Centr.-Am., Het. i. p. 57, pl. 7. f. 12 (1884); Kirby, Cat. Het. p. 138.

♀. Black-brown; antennæ white at tips; patagia with small crimson spots at bases. Hind wing with hyaline patch in and below the cell.

Hab. Guatemala, S. Gerónimo, Caldera (*Champion*), Godman-Salvin Coll., type. *Exp.* 24 millim.

*575. **Pseudomya translucida.**

Pseudocharis translucida, Dognin, Le Nat. (2) iv. p. 91 (1890); Lep. Loja, pl. iv. f. 2; Kirby, Cat. Het. p. 138.

♂. Head, thorax, and abdomen black; wings hyaline with sparse fuscous hairs; the veins and margins black. Fore wing with diffused black median shade expanding into a spot at lower angle of cell. Hind wing with the apical area black.

Hab. Ecuador, Loja. *Exp.* 24 millim. Type † in Coll. Dognin.

Genus HOLOPHÆA, nov.

Type, *H. lycone*.

Proboscis fully developed; palpi porrect, slightly downcurved, extending well beyond frons; tibiæ with the spurs short; abdomen of male with small ventral valve covering basal segment. Fore wing with veins 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell normal; veins 2 and 4 from angle; 3 from 2 near margin; 5 absent; 6, 7 from upper angle.

Sect. I. Antennæ of male bipectinate, with short branches dilated at extremity; of female biserrate.

A. Thorax and first four segments of abdomen orange .... *vesta*.
B. Thorax black.
  a. Shoulders and basal segment of abdomen with crimson spots .... *lycone*.
  b. Shoulders and sides of abdomen with orange stripes...... *prometina*.
  c. Uniform blue, the tegulæ and edges of patagia crimson. *cærulea*.

576. Holophæa vesta.

Hysia vesta, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 637, pl. 8. f. 7 (1877); Kirby, Cat. Het. p. 147.

Head black; thorax and first four segments of abdomen orange-red, the terminal segments black; patagia tipped with black; pectus and legs black; wings with the interspaces hyaline, the veins and margins broadly black; fore wing with diffused discoidal spot; the terminal band of both wings expanding widely on apical area.

Hab. Cayenne, 1 ♂, 1 ♀; Surinam. *Exp.* 26 millim.

577. Holophæa lycone.

Ichoria lycone, Druce, Biol. Centr.-Am., Het. i. p. 47, pl. 6. f. 9; Kirby, Cat. Het. p. 128.

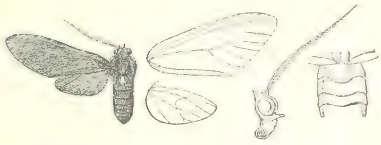

Fig. 118.—*Holophæa lycone*, ♂. $\frac{1}{1}$.

Black-brown with a slight purple shot; frons and vertex of head with some metallic blue; crimson spots on shoulders and a dorsal spot on 1st segment of abdomen; wings uniform in colour. Fore wing with vein 3 from well before angle of cell.

Hab. Costa Rica (*Rogers*), 2 ♀; Panama (*Champion*), 1 ♂, 1 ♀ type, Godman-Salvin Coll. *Exp.* 32 millim.

578. Holophæa prometina.

Thrinacia prometina, Druce, Biol. Centr.-Am., Het. ii. p. 342, pl. 71. f. 13 (1897).

♂. Black; an orange line behind the eyes and stripe on shoulders;

abdomen with broad orange lateral fasciæ; wings semihyaline fuscous black. Fore wing with slight orange streak on base of costa, vein 3 from near angle of cell.

Hab. Mexico, Vera Cruz (*Schumann*). 1 ♂ type, Godman-Salvin Coll. *Exp.* 20 millim.

*579. Holophæa cœrulea. (Plate X. fig. 3.)

Holophæa cœrulea, Druce, A. M. N. H. (7) i. p. 408 (1898).

♀. Uniform brilliant deep blue; tegulæ and slight fringes to patagia crimson.

Hab. Ecuador, 1 ♀ type + in Mus. Oxon. *Exp.* 30 millim.

Sect. II. Antennæ of male unserrate.

580. Holophæa ruatana.

Thrinacia ruatana, Druce, Biol. Centr.-Am., Het. ii. p. 342, pl. 71. f. 17 (1896).

♂. Fuscous black; palpi orange at base; back of head, neck, tegulæ, and patagia orange; coxæ whitish. Fore wing with vein 3 from close to angle of cell.

Hab. Honduras, Ruatan I. (*Gaumer*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 20 millim.

Fig. 119. *Holophæa ruatana*, ♂. ½.

Genus HYPATIA.

	Type.
Hysia, Wlk. i. 172 (1854), nec Muls. Col. 1851	*delecta*.
Hypatia, Kirby, Cat. Het. p. 147 (1892)	*delecta*.

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd joint obtuse; antennæ bipectinate, with moderate branches, in female serrate; tibiæ with the spurs minute. Fore wing with vein 3 from well before angle of cell; 5 from well above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; veins 2 and 4 from angle; 3 from 2 just before margin; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle.

A. Thorax orange .... *delecta*.
B. Thorax black, with white spots .... *melaleuca*.

581. Hypatia delecta.

Hysia delecta, Butl. Journ. Linn. Soc., Zool. xii. p. 396 (1876); Kirby, Cat. Het. p. 147.
Glaucopis astyoche, Wlk. i. 173 (nec Geyer).

♂. Head and tegulæ black; frons white; thorax orange above, with white points at base of fore wings and behind tegulæ; black below, with orange patches near neck; coxæ white; abdomen blue-black, with slight dorsal and lateral white stripes and a broad ventral stripe becoming spots towards extremity. Fore wing hyaline, the veins black; the costa narrowly black; a broad black fascia on inner margin and a terminal band expanding to the cell between vein 5 and costa. Hind wing black, with white patch in end of cell.

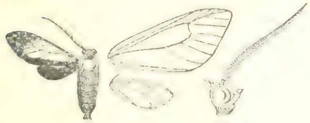
Fig. 120.—*Hypatia delecta*, ♂. 1/1.

Hab. Amazons, Para, 1 ♂ (*Bates*), type. *Exp.* 26 millim.

582. Hypatia melaleuca.

Glaucopis melaleuca, Wlk. i. 173 (1854); Butl. Ill. Het. i. p. 35, pl. 11. f. 2; Kirby, Cat. Het. p. 147.

♀. Black; tegulæ, shoulders, meso- and metathorax with paired white spots; coxæ white; abdomen with whitish dorsal and lateral bands; a ventral band on first four segments and spot at extremity. Fore wing hyaline, the veins black; the costa narrowly black; a broad black fascia on inner margin; a terminal black band expanding to the cell between vein 5 and costa. Hind wing black, with white patch in the cell and hyaline streak below it.

Hab. Amazons, Para, 1 ♀ (*Bates*), type. *Exp.* 26 millim.

Genus **PSILOPLEURA**, nov.

Type, *P. vittata*, Wlk.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd obtuse; proboscis well developed; antennæ of male bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs minute. Fore wing rather long and narrow; vein 3 from near angle of cell; 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10 stalked, 11 from cell. Hind wing with veins 2 and 4 from angle of cell or very shortly stalked; 3 and 5 absent; 6, 7 from upper angle.

A. Abdomen with lateral orange stripes.
  a. Hind wing with the inner area dark, orange at base, the base of costa orange below .... *vittata.*
  b. Hind wing with the inner area and base of costa below whitish .... *polia.*
B. Abdomen without lateral orange stripes .... *sanguipuncta.*

583. Psilopleura vittata.

Pheia vittata, Wlk. xxxi. 83 (1864); Druce, Biol. Centr.-Am., Het. i. p. 61, pl. 7. f. 21; Kirby, Cat. Het. p. 145.

Head, thorax, and abdomen black-brown; thorax with slight orange dorsal stripe; abdomen with broad lateral orange stripes. Fore wing brown, with black streaks on the veins and in interspaces; a wedge-shaped hyaline patch in cell; a large patch below the cell extending into the interspaces between veins 2 and 5 and dentate towards outer margin; a short streak below vein 6 and lunule above it. Hind wing hyaline, the veins dark; the inner area black with some orange at base; a terminal black band expanding towards costa and tornus.

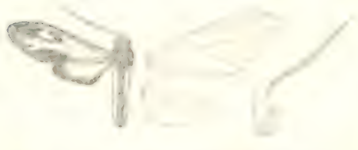
Fig. 121. *Psilopleura vittata*, ♂. ½.

Hab. Mexico, Vera Cruz (*Sallé*), type, Yucatan (*Gaumer*); Guatemala, Vera Paz, V. de Atitlan (*Champion*), Godman-Salvin Coll. *Exp.* 30 millim.

*584. Psilopleura polia. (Plate X. fig. 8.)

Psilopleura polia, Druce, A. M. N. H. (7) i. p. 407 (1898).

♂. Head, thorax, and abdomen brown mixed with grey; palpi white at base; vertex of thorax and patagia streaked with grey; abdomen with lateral orange fasciæ formed of somewhat triangular patches diminishing towards extremity. Fore wing brown and grey, with two hyaline streaks in end of cell; a hyaline fascia below the cell above and below submedian fold; a series of elongate patches between veins 2 and 5, the one above vein 3 extending nearly to termen, and lunulate marks above veins 5 and 6, with blackish streaks beyond them; the inner area blackish except towards tornus. Hind wing hyaline, the veins and margins grey-brown, the inner margin slightly yellowish.

Hab. Brazil, Espiritu Santo, 2 ♂, type † in Mus. Oxon. *Exp.* 38 millim.

585. Psilopleura sanguipuncta, n. sp. (Plate X. fig. 6.)

Head, thorax, and abdomen black-brown; shoulders and patagia with crimson spots. Fore wing dark brown, the veins darker; a wedge-shaped semihyaline patch in cell and elongate patch below the cell; a band beyond the cell between veins 3 and 7. Hind wing semihyaline; the veins blackish; the terminal area brown, expanding on inner area and emitting a streak to the base.

Hab. Brazil, Rio Grande do Sul, 1 ♂ type. *Exp.* 30 millim.

Genus RHYNCHOPYGA.

Type.

Rhynchopyga, Feld. Reis. Nov. p. 8 (1874), non descr. .... *ichneumonea*.

Proboscis well developed; palpi upturned to just above vertex of head; tibiæ with the spurs short; abdomen of male with ventral valve covering basal segments. Fore wing long and narrow; vein 3 from close to angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 2 and 4 on a long stalk; 3 absent; 5 from middle of discocellulars; 6, 7 from upper angle; both wings with veinlets in cell.

Sect. I. Antennæ of male bipectinate, with moderate branches dilated at extremity.

A. Anal segment of male greatly developed and forming a long curved beak.

*586. Rhynchopyga ichneumonea.

Rhynchopyga ichneumonea, Feld. Reis. Nov. pl. 102. f. 30 (1874); Kirby, Cat. Het. p. 113.

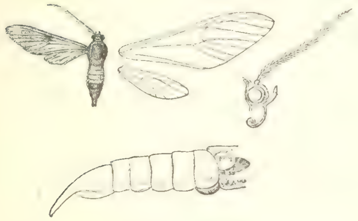

Fig. 122.
Rhynchopyga ichneumonea, ♂. $\frac{1}{1}$.

Head, thorax, and abdomen black-brown; neck and edges of tegulæ, except behind, white; abdomen with the 2nd to 5th segments above and ventral surface crimson. Fore wing cloudy semihyaline fuscous, with clearer hyaline streaks in and below cell and darker discoidal patch. Hind wing brownish hyaline, with apical fuscous patch.

Hab. Colombia, Bogota. *Exp.* 36 millim. Type † in Coll. Rothschild.

B. Abdomen of male with the anal segment normal.	
a. Fore wing with orange patch beyond the cell.	
a^1. Abdomen with lateral crimson stripes	*xanthospila.*
b^1. Abdomen with scarlet band on 2nd and 3rd segments; fore wing with the base scarlet	*rubricincta.*
c^1. Abdomen with magenta band on 2nd and 3rd segments; fore wing with the base not scarlet	*meisteri.*
b. Fore wing without orange postmedial patch	*subflamma.*

587. Rhynchopyga xanthospila, n. sp. (Plate X. fig. 9.)

♂. Head and thorax black, irrorated with white scales; patagia and sides of pectus crimson; abdomen crimson, with dorsal black stripe, the ventral valve white. Fore wing fuscous with the base crimson, its outer edge irregular; two hyaline streaks in cell, two in submedian interspace, and patches between bases of veins 2–5; an orange patch beyond the cell from just below costa to vein 5. Hind wing hyaline, the veins black; a terminal black band expanding towards apex.

Hab. Bolivia, Songo, San Antonio (*Garlepp*), 2 ♂, type. *Exp.* 26 millim.

588. Rhynchopyga rubricincta, n. sp. (Plate X. fig. 10.)

♂. Head and thorax black; patagia orange-red; abdomen with orange-red bands on 2nd and 3rd segments, incomplete dorsally, the ventral surface white, the terminal part of valve black. Fore wing black, the base orange-red; hyaline streaks in and below cell and between bases of veins 2 and 4; an orange patch beyond the cell from just below costa to vein 4 and another patch at tornus.

Hind wing hyaline, the veins black; the costal area orange to beyond middle, the terminal part black.

Hab. BOLIVIA, Coroico (*Garlepp*), 2 ♂, type. *Exp.* 24 millim.

589. Rhynchopyga meisteri. (Plate X. fig. 11.)

[illegible] meisteri, Berg, An. Soc. Arg. xvi. p. 153 (1883), Kirby, Cat. Het. p. 127.

♂. Black-brown; base of palpi and frons bluish; tegulæ and patagia edged with crimson and white scales; coxæ whitish; abdomen with the tubercles and a lateral stripe crimson edged with white scales, the first four segments crimson below, the 1st edged with white. Fore wing with subbasal and postmedial orange spots on costa, the former often obsolete; slight hyaline streaks in and below cell. Hind wing with the interspaces hyaline, leaving the margins broadly suffused with black brown.

♀. Fore wing with the subbasal orange spot almost obsolete; the hyaline streak below the cell more extensive.

Hab. AMAZONS, Tapajos, 1 ♂ in Mus. Oxon.; Castro Parana; Casa Branca 1 ♂; ARGENTINA. *Exp.* 30 millim.

590. Rhynchopyga subflamma.

[illegible] subflamma, Druce, Biol. Centr.-Am., Het. i. p. 56, pl. 8. f. 10 (1886), Kirby, Cat. Het. p. 138.

♂. Black; tegulæ outlined with white; coxæ marked with white; abdomen orange-red, with dorsal and lateral series of black spots, the extremity black, and a medial ventral black patch. Fore wing fuscous black; hyaline streaks in cell and submedian interspaces, the latter divided by black scales in the submedian fold. Hind wing hyaline, the veins, apex, and a patch above tornus fuscous.

Fig. 123.
Rhynchopyga subflamma, ♂. 1.

Hab. PANAMA, Chiriqui, 5000 ft., 1 ♂ (*Champion*), type, Godman-Salvin Coll. *Exp.* 28 millim.

SECT. II. Antennæ of male serrate and ciliated.

A. Hind wing with the interspaces hyaline .... *flavicollis.*
B. Hind wing entirely fuscous .... *melaphæa.*

591. Rhynchopyga flavicollis.

Amycles flavicollis, Druce, Biol. Centr.-Am., Het. i. p. 46, pl. 7. f. 11 (1884); Kirby, Cat. Het. p. 127.

♂. Fuscous black; antennæ white at tips; palpi at base, neck, and greater part of tegulæ orange; coxæ white. Fore wing with slight hyaline streaks in lower part of cell and below the cell.

Hind wing hyaline, the veins and margins black; the terminal band expanding to costa.

Hab. GUATEMALA, Vera Paz, Zapote (*Champion*), 3 ♂, type, Godman-Salvin Coll. *Exp.* 22 millim.

592. Rhynchopyga metaphæa, n. sp.

Amycles flavicollis Druce, Biol. Centr.-Am., Het. ii. p. 335 (part).

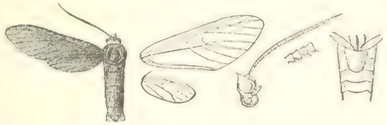

Fig. 124.—*Rhynchopyga metaphæa*, ♂. $\frac{3}{2}$.

♂. Fuscous black; antennæ white towards tips; palpi at base, neck and greater part of tegulæ orange; fore coxæ and femora white.

Hab. MEXICO, Guerrero (*H. H. Smith*), 1 ♂, Godman-Salvin Coll. *Exp.* 20 millim.

Genus HYPOCHARIS, nov.

Type, *H. clusia*.

Proboscis fully developed; palpi porrect, extending well beyond the frons; antennæ of male with moderate branches dilated at extremity; tibiæ with the spurs minute. Fore wing with vein 3 from before angle of cell; 4, 5 shortly stalked; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; veins 2, 3 stalked from angle; 4 from angle; 5 absent; 6, 7 from upper angle.

*593. Hypocharis clusia.

Læmocharis clusia, Druce, A. M. N. H. (6) xx. p. 303 (1897).

♂. Black-brown; shoulders with crimson spots; patagia with crimson stripes; tegulæ and metathorax with metallic blue points; abdomen with dorsal crimson spot at base and lateral series of blue spots. Fore wing dark olive-brown, with the veins black; a broad diffused whitish band from costa beyond middle to termen at vein 4 and tornus. Hind wing semihyaline black.

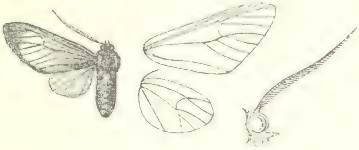

Fig. 125.—*Hypocharis clusia*, ♂. $\frac{1}{1}$.

Hab. AMAZONS (*Leech*). *Exp.* 30 millim. Type † in Coll. Druce.

Genus SAURITA.

	Type.
Saurita, Herr.-Schäff. Aussereur. Schmett. p. 21 (1854)	*cassandra.*
Gymnopoda, Feld. Reis. Nov. p. 5 (1874), non descr.	*incerta.*
Echoneura, Butl. Journ. Linn. Soc., Zool. xii. p. 383 (1876) ...	*intricata.*
Thrinacia, Butl. Journ. Linn. Soc., Zool. xii. p. 384 (1876) ...	*afflicta.*

Palpi upturned to vertex of head; proboscis well developed; antennæ bipectinate, the branches long in male, short in female, dilated and with bristles at extremity; tibiæ with the spurs minute. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long, veins 2, 4 from angle or shortly stalked, 3 from 2 near margin or absent, 5 obsolescent, from middle of discocellulars; 6, 7 from upper angle; both wings with a veinlet in cell.

SECT. I. Hind wing with the inner area very narrow.

A. Abdomen crimson .... *mecrida.*
B. Abdomen orange .... *ochracea.*
C. Abdomen black.
  a. Hind wing metallic blue-green .... *cryptoleuca.*
  b. Hind wing hyaline and black.
    *a*¹. Patagia without crimson spots; abdomen white below.
      *a*². Fore wing with the cell black, with two blue [illegible] .... *[illegible]*
      *b*². Fore wing with the cell hyaline .... *tristissima.*
    *b*¹. Patagia with crimson spot; abdomen black below... *tenuis.*

594. Saurita mecrida.

Gymnopoda mecrida, Druce, A. M. N. H. (6) iv. p. 84 (1889); Biol. Centr.-Am., Het. ii. p. 342, pl. 71. f. 12; Kirby, Cat. Het. p. 138.

♂. Head and thorax blackish; tegulæ outlined with white; crimson spots on metathorax and sides of thorax; abdomen crimson; wings fuscous hyaline. Hind wing with veins 2 and 4 shortly stalked, 3 absent.

♀ with traces of dorsal and lateral series of black spots.

Hab. MEXICO, Mexico city (*Godman*), Durango (*Becker*), 1 ♂, 1 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim.

595. Saurita ochracea.

Gymnopoda ochracea, Feld. Reise Nov. pl. 102. f. 22; Kirby, Cat. Het. p. 137.
Pseudosapa musca, Schaus, P. Z. S. 1892. p. 275.
Thrinacia pontia, Druce, A. M. N. H. (6) xiii. p. 172 (1894).

♂. Head, thorax, and 1st segment of abdomen black mixed with some white scales; abdomen orange-yellow; wings semihyaline fuscous, the veins and margins darker. Fore wing with the terminal area darker. Hind wing with veins 2 and 4 from cell, 3 absent.

Hab. MEXICO, Jalapa (*Trujillo*), 1 ♂ type *pontia*, Godman-Salvin Coll.; COLOMBIA. *Exp.* 24 millim. Type † in Coll. Rothschild; *musca* † in Coll. Schaus.

596. Saurita cryptoleuca. (Plate X. fig. 21.)

Euchromia cryptoleuca, Wlk. i. 239 (1854); Kirby, Cat. Het. p. 127.

♀. Black; vertex of head, tegulæ, legs, and base and sides of abdomen with slight patches of metallic blue-green; slight crimson spots on shoulders and 1st segment of abdomen; fore coxæ and abdomen below white. Fore wing with streaks of metallic blue-green scales in, below, and beyond the cell. Hind wing metallic blue-green, with the veins and margins black; hyaline streaks below the cell and on inner margin.

Hab. Amazons, Para (*Bates*), 3 ♀, type. *Exp.* 30 millim.

*597. Saurita biradiata.

Pseudomya biradiata, Feld. Reis. Nov. pl. 102. f. 37 (1874); Kirby, Cat. Het. p. 138.

♂. Head, thorax, and abdomen black; coxæ, stripes on fore femora, and ventral surface of abdomen white. Fore wing black, with slight semihyaline streak below base of cell; two blue-green streaks in end of cell; the interspaces between veins 2 and 8 hyaline, leaving a terminal black band. Hind wing hyaline, with the veins, cell, and patches at apex and tornus black. Underside with blue in and below cell of fore wing and on costal area of hind wing, and white patch below vein 2 of fore wing.

Hab. Amazons. *Exp.* 28 millim. Type † in Coll. Rothschild.

598. Saurita tristissima.

Glaucopis tristissima, Perty, Del. Anim. Art. p. 156, pl. 31. f. 7 (1834); Kirby, Cat. Het. p. 138.

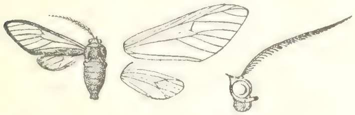

Fig. 126.—*Saurita tristissima*, ♂. $\frac{1}{1}$.

Head, thorax, and abdomen black; thorax with small crimson spot at base of fore wing and metallic blue marks at sides; coxæ white; femora striped with white; abdomen with minute crimson lateral spots near base followed by slight metallic blue spots; the ventral surface white; wings hyaline, with the veins and margins black. Fore wing with the inner margin and apical part of termen rather broadly black. Hind wing with veins 2 and 4 from cell or hardly stalked, 3 absent or from 2 just before margin.

Hab. Amazons, Para (*Bates*). *Exp.* 26 millim.

599. Saurita tenuis.

Pseudomya tenuis, Butl. Ill. Het. i. p. 30, pl. 17. f. 1 (1877); Kirby, Cat. Het. p. 138.

♂. Head, thorax, and abdomen black; crimson spots on patagia and at base of fore wing; coxæ and stripes on femora white; wings hyaline, the veins black. Fore wing with the inner area black; an apical black patch narrowing to vein 3. Hind wing with the inner area black towards tornus, the termen black; veins 2 and 4 hardly stalked, 3 from 2 just before termen.

Hab. Amazons, Rio Trombitas, 1 ♂, type (*Trail*). *Exp.* 22 millim.

Sect. II. Hind wing with the inner area normally broad.

A. (*Saurita*). Abdomen of male with ventral valve covering basal segments; hind tibiæ with the medial spurs extremely minute.
  - *a*. Palpi at base and tips of tegulæ crimson .... *cassandra*.
  - *b*. Palpi black.
    - *a*¹. Abdomen with one dorsal crimson point at base; fore coxæ crimson behind............................... *erythroguia*.
    - *b*¹. Abdomen with crimson dorsal points at base and end of 1st segment; fore coxæ black behind...... *nigripalpia*.
    - *c*¹. Abdomen with dorsal segmental crimson lines ... *sanguisecta*.
    - *d*¹. Abdomen without crimson markings .... *mora*.

600. Saurita cassandra.

Sphinx cassandra, Linn. Syst. Nat. i. p. 494 (1758); Stoll, Pap. Exot. iv. pl. 394 G; Kirby, Cat. Het. p. 127.

Head, thorax, and abdomen black-brown; palpi crimson except towards tips; tegulæ with patches of metallic blue, and crimson tips; shoulders with patches of crimson and blue; pectus and coxæ behind crimson; lateral white patches on metathorax; abdomen with two crimson dorsal points at base, and lateral tufts; a lateral series of large metallic blue spots; the anal tufts crimson. Wings fuscous brown, with the veins and a diffused discoidal patch on fore wing darker. Hind wing with veins 2 and 4 from cell, 3 present.

Fig. 127.—*Saurita cassandra*, ♂. 1/1.

Hab. Trinidad (*Capt. Clark*), 1 ♂, 1 ♀; Surinam; Venezuela; Argentina (*Perrins*), 2 ♀. *Exp.* 38 millim.

601. Saurita erythroguia, n. sp. (Plate X. fig. 5.)

♀. Black-brown; antennæ yellowish white at tips; vertex of head with patch of metallic blue; shoulders with crimson and blue patches; pectus and coxæ behind with crimson patches; abdomen with one dorsal crimson point at base and lateral tufts; a lateral series of metallic blue spots; the anal tufts crimson; wings with the veins blackish. Hind wing with veins 2 and 4 from cell, 3 present.

Hab. Brazil, 2 ♀, types. *Exp.* 40–46 millim.

602. Saurita nigripalpia, n. sp. (Plate X. fig. 20.)

Saurita cassandra, Druce, Biol. Centr.-Am., Het. i. p. 46 (nec Linn.).

Black-brown; vertex of head and tegulæ with patches of metallic blue; shoulders and patagia, pectus, and mid and hind coxæ with crimson patches; abdomen with crimson dorsal points at base and end of 1st segment and lateral tufts; a lateral series of metallic blue spots; the anal tuft crimson; wings with the veins darker. Hind wing with veins 2 and 4 from cell, 3 present.

Hab. Mexico, Orizaba and Misantla (*Godman*), Cordova (*Rümeli*), Vera Cruz (*Schumann*), 3 ♂ 4 ♀, Godman-Salvin Coll. *Exp.* 32–36 millim.

Subsp. 1. Wings with the interspaces brownish or whitish brown; head and thorax without metallic blue patches.

Hab. Costa Rica (*Rogers*), 2 ♀, Godman-Salvin Coll. *Exp.* 28–32 millim.

603. **Saurita sanguisecta**, n. sp. (Plate X. fig. 14.)

♀. Head, thorax, and abdomen black; tegulæ, shoulders, mesothorax, and fore coxæ with crimson patches; pectus with posterior white patches; abdomen with pair of crimson points at base; segmental dorsal crimson lines and pale silvery blue bands on the other segments; wings hyaline, the veins and margins black. Fore wing with crimson point on black patch at base; a discoidal black bar conjoined to costa; the terminal band expanding widely on apical area and at tornus, where it is conjoined to a patch at base of vein 2. Hind wing with discoidal spot conjoined to a patch at tornus extending up to vein 2; an apical patch; veins 2 and 4 shortly stalked or from cell.

Hab. Colombia, 1 ♀ type. *Exp.* 32 millim.

604. Saurita mora.

Dycladia mora, Druce, Biol. Centr.-Am., Het. ii. p. 348, pl. 72. f. 8 (1897).

♀. Black; head, thorax, and abdomen suffused with blue; frons, vertex of head, tegulæ, meso- and metathorax, coxæ, and end of femora and base of tibiæ with white patches; pectus with crimson patches in front; abdomen with dorsal and lateral series of white spots; the ventral surface white. Fore wing with some white and blue at base; an elongate hyaline patch below base of cell; a small wedge-shaped patch in middle of cell and bifid quadrate patch in end of it; and elliptical patch above vein 2 and point above 3. Hind wing with white streak in cell. Underside with diffused white on inner area of both wings.

Hab. Panama, Chiriqui, 1 ♀. *Exp.* 30 millim. Type in Coll. Staudinger.

B. (*Echoneura*). Abdomen of male without ventral valve.
a. Thorax with crimson patches.
a^1. Abdomen and wings with yellowish-white patches...... *lacteata*.
b^1. Abdomen without white patches.
a^2. Fore wing with diffused whitish postmedial band, hind wing fuscous .... *nox*.
b^2. Wings with the interspaces semihyaline .... *phœnicosticta*.

b. Thorax orange-red or crimson.
  *a*¹. Vertex of head orange or red.
    *a*². Fore wing with the base red .... *incerta*.
    *b*². Fore wing without red at base .... *salta*.
  *b*¹. Head black.
    *a*². Base of wings and 1st segment of abdomen orange.
      *a*³. Abdomen with the 1st segment wholly orange; hind wing with hyaline point beyond angle of cell .... *sanguinea*.
      *b*³. Abdomen with lateral orange patches on 1st segment; hind wing with hyaline streaks below and beyond cell .... *myrrha*.
    *b*². Base of wings black.
      *a*³. Basal segments of abdomen red with white points. *cindonissa*.
      *b*³. Basal segments of abdomen black.
        *a*⁴. First segment of abdomen with dorsal blue point, the terminal segments with lateral points.
          *a*⁵. Hind wing with hyaline marks beyond the cell .... *tenuis*.
          *b*⁵. Hind wing without hyaline marks beyond the cell .... *astyoche*.
        *b*⁴. Abdomen wholly black.
          *a*⁵. Wings with prominent hyaline streaks in the interspaces .... *temenus*.
          *b*⁵. Wings with hardly a trace of hyaline streaks. *concisa*.
c. Thorax black.
  *a*¹. Abdomen with dorsal and lateral green stripes.
    *a*². Fore wing with green streaks in and below cell ...... *sericea*.
    *b*². Fore and hind wings with hyaline streaks in and below cell .... *vitristriga*.
  *b*¹. Abdomen dorsally suffused with green.
    *a*². Abdomen with basal and lateral white points ...... *triangulifera*.
    *b*². Abdomen without basal and lateral white points .. *bipuncta*.
  *c*¹. Abdomen with dorsal blue point on 1st segment; wings with the hyaline streaks not extending to terminal area .... *obtecta*.
  *d*¹. Abdomen without blue point; wings with the hyaline streaks extending to terminal area .... *tipulina*

605. Saurita lacteata.

Dycladia lacteata, Butl. Ill. Het. i. p. 34, pl. 17 f. 3 (1877). Kirby, Cat. Het. p. 145.

♂. Head and thorax brown, with crimson patches on shoulders and patagia and whitish patches below; abdomen brown, with whitish patches on dorsum and on basal segments at sides. Fore wing brown, with large yellowish-white patch below the cell and another beyond it between veins 2 and 7, the veins crossing them dark. Hind wing yellowish white; the veins dark; diffused dark patches on apical area and at tornus; veins 2 and 4 from cell, 3 from 2 just before termen.

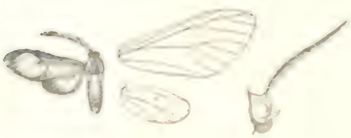

Fig. 128.—*Saurita lacteata*, ♂. ½.

Hab. AMAZONS, Rio Jutahi, 1 ♂ (*Trail*), type. *Exp.* 24 millim.

606. Saurita nox.

Læmocharis nox, Druce, A. M. N. H. (6) xviii. p. 30 (1896); Biol. Centr.-Am., Het. ii. p. 341, pl. 71. f. 11.

♂. Head, thorax, and abdomen fuscous black; patagia with crimson streaks; abdomen with a dorsal crimson spot at base. Fore wing black-brown and thinly scaled, the veins darker; a broad diffused whitish band from just beyond middle to near termen, with the veins crossing it dark and leaving the apical area dark. Hind wing semihyaline grey-black.

Hab. HONDURAS, 1 ♂, type † in Coll. Staudinger; VENEZUELA, Aroa, 1 ♂. *Exp.* 22 millim.

607. Saurita phœnicosticta, n. sp. (Plate X. fig. 17.)

Læmocharis trigutta, Druce, Biol. Centr.-Am., Het. i. p. 55 (nec Wlk.).

♂. Black-brown; bright crimson patches on neck, at base of patagia, and on metathorax; hind tarsi white at extremity; a small dorsal white spot at junction of abdomen. Fore wing hyaline, with the veins and margins diffusedly black-brown. Hind wing with hyaline streaks above veins 3, 4, 5, and 6; veins 2 and 4 from cell, 3 from 2 just before margin.

Hab. GUATEMALA, Vera Paz, 1 ♂ (*Champion*), type, Godman-Salvin Coll. *Exp.* 28 millim.

608. Saurita incerta.

Tipulodes incerta, Wlk. vii. 1627 (1856); Kirby, Cat. Het. p. 131.
Gymnopoda corallonota, Feld. Reis. Nov. pl. 102. f. 23 (1874); Kirby, Cat. Het. p. 137.
Thrinacia intermedia, Druce, Biol. Centr.-Am., Het. i. p. 56 (1884); Kirby, Cat. Het. p. 138.

Dull black; frons white at sides; vertex of head and thorax orange-red; fore coxæ white. Fore wing with small orange-red patch at base with oblique outer edge; slight hyaline streaks in and below cell. Hind wing with veins 2 and 4 from cell, 3 present.

Hab. PANAMA (*Champion*), 1 ♂, type *intermedia*, Godman-Salvin Coll.; 1 ♀ type, without locality; COLOMBIA, Bogota, type † *corallonota* in Coll. Rothschild. *Exp.* 24 millim.

*609. Saurita salta. (Plate X. fig. 12.)

Thrinacia salta, Schaus, P. Z. S. 1894, p. 226.

♂. Black; frons and fore coxæ white; vertex of head, cheeks, and thorax crimson-red. Fore wing with hyaline streaks in and below cell.

Hab. VENEZUELA, Aroa. *Exp.* 22 millim. Type † in Coll. Schaus.

610. Saurita sanguinea.

Thrinacia sanguinea, Druce, Biol. Centr.-Am., Het. i. p. 56, pl. 7. f. 9 (1884); Kirby, Cat. Het. p. 138.

♂. Black; white lines at sides of frons and behind the eyes; thorax and 1st segment of abdomen orange-red; wings with their bases orange. Fore wing with hyaline streaks in and below the cell and in the interspaces beyond it. Hind wing usually with slight orange streak beyond lower angle of cell; veins 2 and 4 shortly stalked, 3 present.

Hab. Guatemala, Vera Paz (*Champion*), 4 ♂, type, Godman-Salvin Coll. *Exp.* 28 millim.

611. Saurita myrrha.

Cosmosoma myrrha, Druce, Biol. Centr.-Am., Het. i. p. 59, pl. 7. f. 10 (1884); Kirby, Cat. Het. p. 142.

♂. Head black; frons whitish; thorax orange-red; abdomen purplish black, with two subdorsal red spots at base and some metallic blue scales towards extremity. Fore wing purplish black; the basal area red, running out to a point below costa; a hyaline patch occupying the cell, part of submedian interspace, and the bases of interspaces between veins 2 and 7. Hind wing purplish black, with hyaline streaks in, below, and just beyond cell.

Hab. Guatemala, Vera Paz (*Champion*), 1 ♂, type Godman-Salvin Coll. *Exp.* 30 millim.

612. Saurita vindonissa. (Plate X. fig. 15.)

Dycladia vindonissa, Druce, P. Z. S. 1883, p. 378; Kirby, Cat. Het. p. 146.

♂. Head black; thorax orange-red; tegulæ and patagia black, the former with medial white points; legs black; abdomen with the first two segments and lateral patches on 3rd orange red; a subdorsal series of white points and a dorsal point on 1st segment; the ventral surface orange-red to near extremity; wings black. Fore wing with hyaline streak below costa to beyond middle, two streaks in cell and one in submedian interspace. Hind wing with slight streak in cell and fasciæ below the cell and between veins 2 and 5 and above vein 5.

Hab. Ecuador, Sarayacu (*Buckley*), 1 ♂. *Exp.* 32 millim. Type † in Coll. Druce.

613. Saurita tenuis. (Plate X. fig. 18.)

Echoneura tenuis, Butl. Journ. Linn. Soc., Zool. xii. p. 384 (1876); Kirby, Cat. Het. p. 137.

♀. Black; vertex of head and tegulæ with blue spots; thorax scarlet above; abdomen with dorsal blue point on 1st segment, the terminal segments with some lateral patches of blue scales; wings with hyaline in and below cell and in the interspaces beyond it. Hind wing with veins 2 and 4 shortly stalked, 3 absent.

Hab. BRAZIL, Espiritu Santo, 1 ♀ type. *Exp.* 38 millim.

*614. Saurita astyoche.

Euchromia astyoche, Geyer, Zutr. Ex. Schmett. iv. p. 41. ff. 793, 794 (1832); Kirby, Cat. Het. p. 147.

♂. Black; thorax orange; abdomen with dorsal and lateral metallic blue spots. Fore wing with hyaline streak below costa; a forked streak in cell; a streak below cell, and a slight mark above base of vein 2. Hind wing with short hyaline streak in and below base of cell. Underside with the inner area of fore wing clothed with white scales up to vein 4 and the whole of hind wing except base and basal two-thirds of costa.

Hab. SURINAM; BRAZIL, Rio Grande do Sul, Coll. Staudinger. *Exp.* 30 millim.

615. Saurita temenus.

Sphinx temenus, Stoll, Pap. Exot. iv. pl. 367. D (1781); Kirby, Cat. Het. p. 147.
Glaucopis afflicta, Wlk. i. 144 (1854); Butl. Ill. Het. i. p. 29, pl. 7. f. 12; Kirby, Cat. Het. p. 138.

Black; thorax orange-red above and below, the legs black. Fore wing with hyaline streaks in the interspaces of basal half, the interspaces of outer area thinly scaled. Hind wing with the interspaces hyaline, the veins and margins dark; veins 2 and 4 from angle of cell, 3 present.

Hab. SURINAM; AMAZONS, Para (*Bates*), 1 ♂, 3 ♀, type *afflicta*. *Exp.* 24 millim.

616. Saurita concisa. (Plate X. fig. 19.)

Euchromia concisa, Wlk. i. 243 (1854); Kirby, Cat. Het. p. 128.
Thrinacia afflicta, Druce, Biol. Centr.-Am., Het. i. p. 56 (nec Wlk.).

Black; thorax orange-red above and below; legs black; wings with the interspaces rather thinly scaled. Hind wing with veins 2 and 4 shortly stalked, 3 absent.

Hab. PANAMA (*Champion*), 1 ♀, Godman-Salvin Coll.; AMAZONS, Para (*Bates*), 1 ♂, 1 ♀, types. *Exp.* 26 millim.

617. Saurita sericea.

Læmocharis sericea, Herr.-Schäff. Aussereur. Schmett. f. 253 (1854); Kirby, Cat. Het. p. 126.
Pseudosphenoptera demoanassa, Druce, A. M. N. H. (6) xviii. p. 29; Biol. Centr.-Am., Het. ii. p. 336, pl. 71. f. 1.

♀. Black-brown; frons with two white points; pectus and hind coxæ with patches of white; abdomen with lateral white spots on 1st segment and dorsal, lateral, and sublateral metallic green stripes. Fore wing with white point at base of costa; a short hyaline streak below base of costa; metallic green suffusion in and below base of cell and a spot on discocellulars. Underside with metallic green streaks in cell of each wing. Hind wing with veins 2 and 4 from cell; 3 present.

Hab. PANAMA; BRAZIL, Rio Janeiro, 2 ♀. *Exp.* 46 millim. Type† *demoanassa* in Coll. Staudinger.

618. Saurita vitristriga. (Plate X. fig. 25.)

Saurita vitristriga, Druce, A. M. N. H. (6) xx. p. 301 (1897).

♀. Black-brown; tegulæ with patches of metallic blue; pectus and coxæ with white patches; abdomen with dorsal and lateral metallic green stripes and a sublateral series of white patches. Fore wing with slight hyaline streak below base of costa and in end of cell. Hind wing with short hyaline streaks in and below base of cell; veins 2 and 4 shortly stalked, 3 present.

Hab. BR. GUIANA, Demerara (*Bower*), 1 ♀. *Exp.* 44 millim. Type† in Coll. Druce.

619. Saurita triangulifera. (Plate X. fig. 22.)

Pseudosphenoptera triangulifera, Druce, A. M. N. H. (7) i. p. 207 (1898).

♂. Black; vertex of head, tegulæ, and thorax suffused with metallic blue; coxæ with patches of white; tarsi white at extremities; abdomen dorsally suffused with metallic green; a pair of dorsal points on 1st segment, of subdorsal on 2nd segment, and of sublateral on three medial segments. Fore wing with the interspaces of basal half suffused with brilliant blue; a hyaline streak below basal half of costa; a small spot below base of cell and often a minute streak or triangular spot in upper end of cell. Hind wing with hyaline point in base of cell. Underside with blue suffusion below costa and in cell of both wings and below cell of fore wing.

Hab. BRAZIL, Casa Branca, 1 ♂. *Exp.* 32 millim. Type † in Coll. Druce.

620. Saurita bipuncta, n. sp. (Plate X. fig. 27.)

Black; frons, tegulæ, and pectus behind spotted with white; tegulæ and metathorax with patches of blue; abdomen dorsally suffused with blue-green. Fore wing with some blue at base; small antemedial hyaline spots below costa and cell; the medial third of wing suffused with blue-green.

Hab. BRAZIL, Sta. Catharina, Porto Allegre, Rio Grande do Sul, 2 ♂, type. *Exp.* 40 millim.

621. Saurita intricata. (Plate X. fig. 26.)

Euchromia intricata, Wlk. i. 237 (1854); Kirby, Cat. Het. p. 137.
Echoneura angusta, Butl. Journ. Linn. Soc., Zool. xii. p. 384 (1876); Kirby, Cat. Het. p. 137.

Echoneura catastibina, Butl. Journ. Linn. Soc., Zool. xii. p. 384 (1876); Kirby, Cat. Het. p. 137.

♂. Black; vertex of head with two blue spots; abdomen with dorsal blue point on 1st segment; both wings with hyaline streaks in and below cell; cilia whitish. Underside suffused with white except towards costa of fore wing. Hind wing with veins 2 and 4 shortly stalked, 3 absent.

♀. Extremity of abdomen with some blue scales; both wings with hyaline streaks in interspaces beyond the cell; cilia and underside black.

Ab. 1. *angusta*: fore wing without hyaline streaks beyond the cell between veins 5 and 6; hind wing without hyaline streak above the discal fold.

Hab. Brazil, Espiritu Santo, type *angusta*; Rio Janeiro, types *intricata* and *catastibina*. *Exp.*, ♂ 34, ♀ 38 millim.

622. Saurita tipulina.

Glaucopis tipulina, Hübn. Samml. Ex. Schmett. i. (1827); Butl. Ill. Het. i. p. 29, pl. 7. f. 7; Druce, Biol. Centr.-Am., Het. i. p. 57; Kirby, Cat. Het. p. 138.
Glaucopis bibia, Wlk. i. 143 (1854).

Head, thorax, and abdomen black; head and prothorax irrorated with a few metallic green scales. Fore wing semihyaline fuscous; the base irrorated with a few metallic green scales; the veins, streaks in cell and submedian interspaces, and the inner margin rather broadly black. Hind wing fuscous hyaline; the veins, inner area, and margin black; veins 2 and 4 from cell, 3 present.

Hab. Guatemala; Panama, Chiriqui, Godman-Salvin Coll.; Brazil, Sta. Catharina, Espiritu Santo, Para (*Bates*), type *bibia*. *Exp.* 26 millim.

Genus SCENA.

Type.
Scena, Wlk. i. 263 (1854).. *styx*.

Proboscis fully developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; thorax thickly clothed with woolly hair; tibiæ with the spurs moderate; abdomen clothed with woolly hair; a ventral valve in male covering basal segments. Fore wing long and narrow, the costa arched towards apex; vein 3 from before angle of cell; 4, 5 from angle, 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the cell normal; veins 2 and 4 from angle or stalked; 3 and 5 absent; 6, 7 from upper angle.

Sect. I. Hind wing with veins 2 and 4 stalked.

623. Scena potentia.

Chloropsinus potentia, Druce, A. M. N. H. (6) xiii. p. 171 (1894); Biol. Centr.-Am., Het. ii. p. 351, pl. 72. f. 12.

♂. Fuscous with a blue-grey tinge; antennæ white at tips:

thorax fulvous orange above, the patagia black at tips. Fore wing with two minute white points at base.

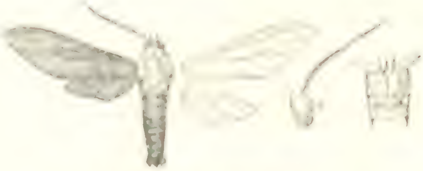

Fig. 129.—*Scena potentia*, ♂. ½.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂; Costa Rica (*Underwood*), 1 ♂, Godman-Salvin Coll. *Exp.* 36 millim.

Sect. II. Hind wing with veins 2 and 4 from cell.

624. Scena styx.

Euchromia styx, Wlk. i. 264 (1854), nec Fabr.; Kirby, Cat. Het. p. 119.
Scena propylea, Druce, A. M. N. H. (6) xiii. p. 170 (1894); Biol. Centr. Am., Het. ii. p. 334, pl. 70. f. 26.

Head and thorax clothed with orange-red hair; antennæ black; tegulæ with opalescent purple spots; hind tarsi white towards extremity; abdomen black, with dorsal, lateral, and sublateral series of metallic blue spots; wings black. Fore wing with metallic blue marks at base and on discocellulars. Underside with metallic blue streaks on the veins forming the cell of both wings and the base of nervules.

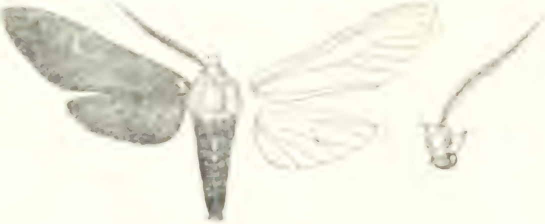

Fig. 130.—*Scena styx*, ♂. ½.

Hab. Mexico, 1 ♂, Jalapa, 1 ♂, type. *Exp.* 50 millim. Type † *propylea* in Coll. Druce.

Genus MICRAGYRTA.

	Type.
Micragyrta, Butl. Cist. Ent. ii. p. 114 (1870)	*diminuta*.

Proboscis well developed; palpi upturned, slender, the 2nd joint long and reaching vertex of head, the 3rd minute; antennæ of female biserrate, ending in bristles; tibiæ with the spurs short. Fore wing moderately broad; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 stalked. Hind wing with veins 2 and 3 on a long stalk from angle of cell; 4 from angle; 5 obsolescent from middle of discocellulars; 6, 7 stalked; both wings with a veinlet in cell.

625. Micragyrta diminuta.

Dioptis diminuta, Wlk. ii. p. 328 (1854); Kirby, Cat. Het. p. 121.
Agyrta gavisa, Wlk. xxxi. 147 (1864); Kirby, Cat. Het. p. 121.

♀. Black shot with dark blue; head, thorax, abdomen, and base of wings shot with brilliant metallic blue; frons white. Fore wing with hyaline streaks in and below cell; an oblique series of streaks beyond the cell between veins 3 and 7. Hind wing with hyaline streak below the cell and between veins 2 and 4, and a streak above vein 4.

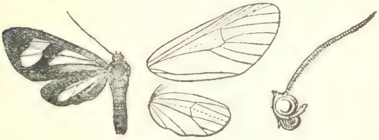

Fig. 131.—*Micragyrta diminuta*, ♀. $\frac{1}{1}$.

Hab. Brazil, Ega, 1 ♀, type *gavisa*; Para, 1 ♀ type (*Bates*). *Exp.* 30–34 millim.

Genus METALOBA, nov.

Type, *M. nana*.

Proboscis well developed; palpi obliquely porrect, extending about the length of head, the 3rd joint short; antennæ bipectinate, with rather long branches; tibiæ with the spurs short. Fore wing long and narrow; vein 2 from long before angle of cell; 3 from close to angle; 4, 5 somewhat approximated for a short distance; 6 from upper angle, in male stalked with 7, 8, 9; 10, 11 shortly stalked. Hind wing with the cell short; veins 2 and 4 from angle; 3 and 5 absent in male; 3 from 2 near margin in female; 6, 7 stalked; 8 present as an aborted vein in male, not reaching costa; male with the wing lanceolate and running out to a point at vein 4; a fold between veins 2 and 4; the tornus lobed, the inner area with a fold containing a thick fringe of hair.

A. Abdomen with golden fasciæ .... *nana*.
B. Abdomen with green fasciæ .... *argante*.

*626. Metaloba nana.

Calanotos nana, Druce, A. M. N. H. (6) xx. p. 300 (1897).

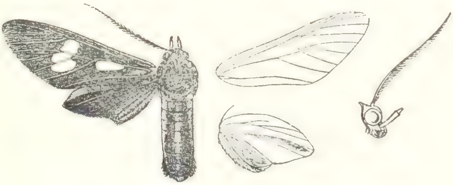

Fig. 132.—*Metaloba nana*, ♂. $\frac{1}{1}$.

♂. Black; palpi at base, frons, and tegulæ with white points; pectus and coxæ with patches of white; abdomen with dorsal and lateral golden fasciæ, the 1st segment with lateral white spots and a ventral series. Fore wing with white points at base and short golden green fascia below median nervure; an elongate hyaline spot below middle of cell; a series of three spots beyond the cell above veins 2, 3, and 5. Hind wing with the fringe of hair on inner area brownish.

Hab. Colombia, S. Martin, Llanos of Rio Meta (*Child*). *Exp.* 48 millim. Type † in Coll. Druce.

*627. **Metaloba argante.** (Plate X. fig. 13.)

Calanotes argante, Druce, A. M. N. H. (6) xx. p. 301 (1897).

♂. Black; frons and tegulæ with white points; metathorax with silvery blue patch; fore coxæ with patches of white; legs streaked with blue and white; abdomen with silvery blue dorsal patch on 1st segment and lateral tufts of ochreous hair; the 2nd and 3rd segments dorsally silvery blue with an ochreous suffusion, the other segments with dorsal, lateral, and sublateral blue fasciæ not reaching extremity; a white ventral fascia. Fore wing with blue fascia below basal half of costa and patch below median nervure; an elongate hyaline spot below middle of cell and rounded spot beyond the cell. Hind wing with hyaline point beyond upper angle of cell; the inner area whitish, with ochreous fringes in fold and on inner margin. Underside with silvery blue fasciæ on fore wing below costa and in and below cell, on hind wing, below costa and on inner area, the fold above vein 2 golden yellow.

♀. Abdomen with the green dorsal and lateral fasciæ reaching base. Fore wing with additional hyaline spots above veins 2 and 3; hind wing with well-developed spot beyond cell.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 42 millim. Type † in Coll. Druce.

Genus **PSOLOPTERA.**

Type.
Psoloptera, Butl. Journ. Linn. Soc., Zool. xii. p. 369 (1876) ...... *thoracica.*

Proboscis well developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with long branches; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from long before angle of cell; 3 from near angle; 4, 5 somewhat approximated for a short distance; 6 from just below upper angle; 7, 8, 9 stalked; 10, 11 stalked. Hind wing with the cell normal; veins 2 and 4 from angle; 3 from 2 near margin; 5 absent; 6, 7 from upper angle.

A. Thorax crimson or scarlet above.
  a. Fore wing with the base scarlet .... *basifulva.*
  b. Fore wing with the base dark .... *thoracica.*
B. Thorax blue-black .... *leucosticta.*
C. Thorax black with green spots; fore wing with the basal half green .... *aurifera.*

628. **Psoloptera basifulva.** (Plate X. fig. 23.)

Psoloptera basifulva, Schaus, P. Z. S. 1894, p. 225.
Psoloptera thoracica, Druce, Biol. Centr.-Am., Het. i. p. 46 (part).

♂. Blue-black; thorax scarlet; legs black; coxæ with white spots; abdomen with two dorsal white points on 1st segment and ventral white points. Fore wing with two basal white points, the base scarlet with oblique outer edge.

Hab. Panama, Chiriqui (*Champion*), 3 ♂, Godman-Salvin Coll.; Peru, type † in Coll. Schaus. *Exp.* 38 millim.

629. Psoloptera thoracica.

Euchromia thoracica, Wlk. i. 243 (1854); Butl. Ill. Het. i. p. 24, pl. 8. f. 6; Druce, Biol. Centr.-Am., Het. i. p. 46; Kirby, Cat. Het. p. 127.

Blue-black; frons with a white bar; vertex of head with two white spots; thorax crimson above; coxæ and extremity of mid and hind femora with white spots; abdomen with two white dorsal spots at base. Fore wing with two white spots at base.

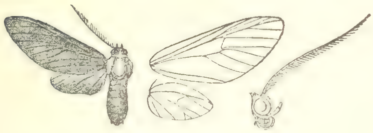

Fig. 133.—*Psoloptera thoracica*, ♂. $\frac{1}{1}$.

Hab. Panama (*Walker*), Godman-Salvin Coll.; Ecuador; Amazons, Ega (*Bates*), type. *Exp.* 34 millim.

630. Psoloptera leucosticta.

Glaucopis leucosticta, Hübn. Samml. Ex. Schmett. i. (1827); Kirby, Cat. Het. p. 127.

Purplish black; frons white above; vertex of head and tegulæ with two white points; sides of thorax and coxæ with white spots; abdomen with two dorsal white spots on 1st segment; some diffused white on ventral surface. Fore wing with two white points at base.

Hab. Amazons, Para, Santarem (*Bates*), 3 ♂, 1 ♀. *Exp.* 36 millim.

631. Psoloptera aurifera.

Læmocharis aurifera, Herr.-Schäff. Aussereur. Schmett. f. 252 (1854); Kirby, Cat. Het. p. 126.

♂. Black-brown; antennæ white at tips; tegulæ, patagia, and mesothorax with paired green spots; abdomen with a pair of dorsal green spots on 1st segment and dorsal and lateral golden-green stripes on the other segments. Fore wing with the basal half golden green.

♀. Fore wing with small elongate white spot below middle of cell and small round spot beyond upper angle or with obsolescent spot below end of cell only.

Hab. Brazil, Casa Branca, 2 ♀. *Exp.* 50 millim.

Genus EUROTA.

	Type.
Eurota, Wlk. i. 180 (1854)	*picta.*
Endera, Wlk. i. 228 (1854)	*vulcanus.*
Fregella, Wlk. i. 272 (1854)	*semiluna.*

Proboscis well developed; palpi upturned, reaching vertex of head; antennæ with the medial part of shaft dilated, bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; build stout; abdomen with short lateral tufts on last four segments. Fore wing with vein 3 from near angle of cell; 4, 5 from angle or shortly stalked; 6 from upper angle; 7, 8, 9, 10 stalked. Hind wing with the cell normal; veins 2 and 4 stalked or from cell; 3 from 2 just before margin or absent; 6, 7 from upper angle.

Sect. I. (*Fregella*). Hind wing with veins 2 and 4 on a long stalk.

A. Abdomen with yellow and crimson lateral patches; tegulæ with yellow spots.
  a. Hind wing with the inner area crimson.
    *a*¹. Both wings with large medial series of hyaline patches; fore wing with postmedial series of streaks. *hermione*.
    *b*¹. Both wings with the hyaline spots small .... *schausi*.
  b. Hind wing with the inner area hyaline .... *selva*.
B. Abdomen with crimson band on 2nd segment, lateral patches on 1st segment, and dorsal patches on terminal... *semiluna*.
C. Abdomen with yellow bands; no crimson and yellow spots; tegulæ wholly yellowish.
  a. Markings yellow; fore wing with no subcostal streak... *herricki*.
  b. Markings whitish; fore wing with subcostal streak. *sericaria*.

632. Eurota hermione.

Eurota hermione, Berg, Descr. Rep. Arg. v. p. 380 (1878); Kirby, Cat. Het. p. 144.

♂. Dark brown; tegulæ, shoulders, and fore coxæ with yellow spots; abdomen with crimson tufts at base, two dorsal yellow spots on 2nd segment; a lateral series of yellow and crimson spots, forming almost complete bands on 5th and 6th segments; a sublateral series of yellow and crimson spots and a ventral series of yellow patches. Fore wing with yellow spot at base of costa; a wedge-shaped hyaline patch in cell and large patch below the cell; a series of five spots beyond the cell; the spot above vein 3 longest and approaching termen. Hind wing with the inner area crimson; a crimson discocellular speck; a hyaline patch beyond the cell; a streak below vein 2 and small spot between veins 2 and 4.

Fig. 131. *Eurota hermione*, ♂. ½.

Hab. Argentina, 6 ♂. *Exp.* 30 millim.

*633. Eurota schausi, nom. nov. (Plate X. fig. 16.)

Eurota helena, Schaus, J. N. Y. Ent. Soc. iv. p. 130 (1896), nec Herr.-Schäff.

♂. Black-brown; tegulæ and shoulders with yellow spots; metathorax with paired crimson points; abdomen with lateral crimson patches on first three segments, and yellow patches on the next two segments. Fore wing with short yellow streak on median nervure and some crimson hair on inner margin at base; a small medial hyaline bar across end of cell and two spots below the cell; a series of four small spots beyond the cell between veins 3 and 7.

Hind wing with the inner area crimson; two small hyaline spots beyond the cell.

Hab. Brazil, Castro Paraná. *Exp.* 38 millim. Type † in Coll. Schaus.

*634. Eurota selva.

Eurata selva, Herr.-Schäff. Aussereur. Schmett. f. 227 (1854).

Black-brown; tegulæ, orange and scarlet; metathorax scarlet; abdomen with lateral scarlet bands on first three segments, the next two segments with broad scarlet and orange bands indented in front on dorsum, the two terminal segments with scarlet patches. Fore wing with hyaline streak below basal half of costa and wedge-shaped patches in and below cell; an irregular postmedial band between veins 2 and 8, narrowing between 5 and 6. Hind wing hyaline, the veins black; a broad irregular terminal band expanding towards apex and below vein 2.

Hab. Argentina. *Exp.* 34 millim. This species is unknown to me.

635. Eurota semiluna.

Euchromia semiluna, Wlk. i. 272 (1854); Butl. Ill. Het. i. p. 22, pl. 9. f. 8 (1877); Kirby, Cat. Het. p. 118.

♀. Black; palpi, vertex of head, tegulæ, and dorsal edge of patagia crimson; metathorax edged with crimson; thorax below and coxæ crimson; abdomen with crimson lateral patches on 1st segment, the 2nd with crimson band, the following segments slightly edged with metallic blue, the last three segments with conjoined dorsal patches increasing laterally towards extremity. Fore wing with curved orange band from below costa near base to base of inner margin, where it is slightly crimson; a medial orange band from below costa to vein 1 constricted at middle; an oblique maculate band beyond the cell between veins 7 and 3. Hind wing with the base orange in cell, crimson on inner area; two conjoined spots beyond the cell between veins 2 and 7.

Hab. Brazil, 1 ♀ type. *Exp.* 48 millim.

636. Eurota herricki.

Eurota herrickii, Butl. Journ. Linn. Soc., Zool. xii. p. 366 (1876); Kirby, Cat. Het. p. 122.

Eurata serricaria, Herr.-Schäff. Aussereur. Schmett. f. 229 (1854), nec Perty.

♂. Black-brown; tegulæ orange-yellow; shoulders yellow, with small crimson spots; metathorax crimson; abdomen with orange-yellow bands connected at sides, except on last segment. Fore wing with orange-yellow basal patch with irregular outer edge extending on inner margin almost to middle; a very irregular medial band from subcostal nervure to vein 1, towards which it expands; an irregular oblique postmedial band from just below costa to vein 3 near termen; a small spot below vein 3. Hind wing with crimson-tinged basal orange patch with irregular outer edge; a large irregular obliquely placed spot beyond the cell.

Hab. ARGENTINA, Goya (*Perrins*), 1 ♂. *Exp.* 46 millim.

637. Eurota sericaria.

Glaucopis sericaria, Perty, Del. Anim. Art. p. 159, pl. 31. f. 14 (1834); Kirby, Cat. Het. p. 123.

♂. Black-brown; tegulæ and shoulders yellowish white; metathorax crimson; abdomen with four white bands on basal segments. Fore wing with white streak below costa extending to two-thirds of wing; a white basal patch tinged with yellow at base, its outer edge curved and extending along inner margin to middle; an irregular medial white band from subcostal nervure to vein 1 on which it expands; an irregular oblique postmedial band from below costa to vein 3 near termen. Hind wing with yellowish white on base of inner margin; a curved postmedial patch beyond the cell between veins 7 and 2.

Hab. BRAZIL, Theresopolis, 1 ♂, Minas Geraes. *Exp.* 42 millim.

In Perty's figure the white markings are reduced.

SECT. II. (*Eurota*). Hind wing of ♂ with veins 2 and 4 from cell, rarely shortly stalked.

- A. Abdomen with subdorsal series of white spots; the patches on terminal segments crimson .... *vulcanus.*
- B. Abdomen with dorsal series of white points, the 1st three segments with crimson lateral patches .. .. *histrio.*
- C. Abdomen crimson, with black dorsal patches on 1st, 3rd, and 4th segments .... [illegible]
- D. Abdomen with yellow or white bands or patches.
  - *a.* Abdomen with crimson lateral patches at base.
    - a^1. Abdomen with yellow dorsal bands on 1st, 4th, and 5th segments only.
      - a^2. Tegulæ wholly yellow, male with the abdominal valve edged with yellow .... *stictibasis.*
      - b^2. Tegulæ edged with yellow; male with the abdominal valve black .... *maritana.*
      - c^2. Tegulæ and abdominal bands white; base of wings crimson .... [illegible]
    - b^1. Abdomen with yellowish dorsal bands on each segment .. .. *picta.*
  - *b.* Abdomen without crimson markings.
    - a^1. Abdomen with lateral fasciæ of conjoined triangular yellow patches .... *strigiventris.*
    - b^1. Abdomen with complete dorsal yellow bands ...... *helena.*

638. Eurota vulcanus.

Euchromia vulcanus, Wlk. i. 228 (1854); Herr.-Schäff. Aussereur. Schmett. f. 295; Druce, Biol. Centr.-Am., Het. i. p. 43; Kirby, Cat. Het. p. 124.

♀. Black; antennæ white at tips; shoulders and sides of thorax with white spots; fore femora fringed with crimson; abdomen with subdorsal and sublateral series of white spots, the anal segments more or less strongly fringed with crimson. Fore wing with white spot at base of costa; a subcostal hyaline streak near base; a quadrate spot below base of cell; a spot in end of cell and spot below origin of vein 2; a series of four spots beyond the cell. Hind wing with hyaline spot below base of cell and a series of three spots beyond the end, the two upper conjoined.

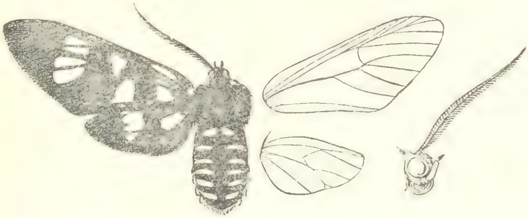

Fig. 135.—*Eurota vulcanus*, ♂. $\frac{1}{1}$.

Hab. Mexico, type; Guerrero (*H. H. Smith*); Cuesta de Misantla (*Trujillo*), Godman-Salvin Coll. *Exp.* 52–60 millim.

639. **Eurota histrio.** (Plate X. fig. 28.)

Glaucopis histrio, Guér. Icon. Règne Anim., Ins. 502; Kirby, Cat. Het. p. 123.

♂. Dark brown; frons white; tegulæ and shoulders with metallic blue patches; patagia with crimson streaks; metathorax with white patch; pectus with white and crimson patches; abdomen with large lateral crimson patches centred with opalescent blue; dorsal and sublateral series of white points. Fore wing with white mark at base followed by some blue scales; a slight hyaline streak below base of costa; a quadrate semihyaline orange patch below base of cell and larger patches in and below end of cell; a large patch beyond the cell between veins 3 and 7, extending almost to termen between veins 3 and 4. Hind wing with yellowish hyaline basal patch and large patch beyond the cell between veins 3 and 7.

Hab. Brazil, Casa Branca; Bolivia, 1 ♂ type † in Mus. Oxon.; Paraguay, 1 ♂. *Exp.* 38 millim.

*640. **Eurota igniventris.**

Eurata igniventris, Burm. Descr. Rep. Arg. v. p. 378 (1878); Kirby, Cat. Het. p. 122.

Head, thorax, and abdomen crimson; antennæ black, yellow at tips; legs black, the coxæ, base of femora, and hind tibiæ pale red; mesothorax black; some blue scales on vertex of head, tegulæ, and thorax; patagia edged with black on outer side; abdomen with blue and black dorsal patches on 1st, 3rd, and base of 4th segments; wings black, with the base yellow with some red scales; fore wing with two yellow bands; hind wing with the costal area and a patch beyond cell yellow.

Hab. Argentina, Cordova. *Exp.* 40 millim. This species is unknown to me.

641. **Eurota stictibasis**, n. sp. (Plate XI. fig. 1.)

♂. Black-brown; tegulæ orange-yellow; shoulders with yellow and crimson spots; abdomen with lateral triangular crimson marks on first three segments, the 1st pair connected by a yellow dorsal line; yellow bands on the two subterminal segments; three ventral yellow bands on subterminal segments. Fore wing with yellow basal spot; an irregular variable medial yellowish-white band from subcostal nervure to vein 1; an oblique maculate postmedial band of four spots from below costa to vein 3 near termen. Hind wing with oblique postmedial yellowish-white patch beyond the cell between veins 7 and 2.

Hab. Brazil, São Paulo, 2 ♂ (*Jones*), types. *Exp.* 38 millim.

*642. **Eurota maritana**. (Plate XI. fig. 16.)

Eurata maritana, Schaus, J. N. Y. Ent. Soc. iv. p. 130 (1896).

♂. Black; tegulæ edged with yellow; shoulders with yellow spots; abdomen with lateral crimson patches on first three segments, the 1st segment dorsally edged with yellow, the 4th and 5th segments with yellow bands. Fore wing with elongate yellow spot below base of cell; a small spot in end of cell, and wedge-shaped patch below base of vein 2; an oblique series of four patches beyond the cell between veins 3 and 7. Hind wing with small yellowish spot beyond the cell above vein 4, the right side with traces of a spot below vein 4.

Hab. Brazil, Castro Paraná. *Exp.* 34 millim. Type + in Coll. Schaus.

*643. **Eurota patagiata**.

Eurata patagiata, Burm. Descr. Rep. Arg. v. p. 379 (1878). Kirby, Cat. Het. p. 144.

Black-brown; tegulæ and bands on 1st, 4th, and 5th segments of abdomen white; the basal segments crimson at sides; the ventral surface with two white bands. Fore wing with the base crimson, with white patch at base of costa; medial and postmedial hyaline bands, the former divided into two, the latter into four patches. Hind wing with postmedial hyaline band with small spot below vein 3, which is present.

Hab. Argentina, Paraná, Cordova. *Exp.* 40 millim. This species is unknown to me.

644. **Eurota picta**.

Eurata picta, Herr.-Schaff. Aussereur. Schmett. f. 52 (1853); Butl. Ill. Het. i. p. 22, pl. 11. f. 14; Kirby, Cat. Het. p. 122.
Glaucopis pictula, Wlk. i. 181 (1854).

♀. Black-brown; tegulæ and neck orange-yellow; sides of thorax with patches of yellow and crimson; abdomen banded yellow and black and with lateral crimson patches at base. Fore wing with yellowish basal patch; a quadrate hyaline patch in end of cell and large spot below it; a series of five spots beyond the cell between veins 2 and 7, the spot between veins 3 and 4 almost reaching termen. Hind wing with small crimson patch at base of inner margin; three confluent hyaline spots beyond the cell.

Hab. VENEZUELA, 1 ♀, type *pictula*. *Exp.* 36 millim.

645. Eurota strigiventris.

Glaucopis strigiventris, Guér. Voy. Coquille, Zool. ii. (2) p. 283, pl. 19. f. 8 (1830); Kirby, Cat. Het. p. 144.

♂. Dark brown; tegulæ white and yellow; shoulders spotted with golden yellow; abdomen with lateral fasciæ of conjoined golden yellow patches; two ventral series of white spots, which become triangular and are almost conjoined towards extremity. Fore wing with yellowish-white basal patch composed of three short streaks; an irregular medial maculate hyaline band between subcostal nervure and vein 1, towards which it expands; a small spot above base of vein 2; an irregular series of four spots beyond the cell between veins 3 and 7, and a speck below vein 3. Hind wing with yellow patch at base extending on inner margin nearly to tornus; a series of three hyaline spots beyond the cell, the lower placed nearer the termen.

Hab. S. BRAZIL; ARGENTINA, 1 ♂. *Exp.* 36 millim.

Subsp. 1. ♂. Fore wing with the spots of medial band in cell small; an elongate streak above vein 2; hind wing with elongate streak below end of cell.

♀. Wings small; hind wing without hyaline streak below end of cell.

Hab. BOLIVIA (*Garlepp*), 1 ♂ 1 ♀. *Exp.*, ♂ 30, ♀ 24 millim.

646. Eurota helena.

Eurata helena, Herr.-Schäff. Aussereur. Schmett. f. 230 (1854); Kirby, Cat. Het. p. 144.
Læmocharis lætifica, Maass. in Stübel's Reise S. Am., Lep. p. 129, pl. 4. f. 19 (1890); Kirby, Cat. Het. p. 122.

♂. Dark brown; tegulæ yellowish white; abdomen with tufts of orange hair at base, and dorsal bands conjoined at sides; tw ventral series of white spots. Fore wing with short white streaks below base of costa and median nervure, and an orange mark on inner margin; three irregular medial semihyaline white spots, and a series of five spots beyond the cell, excurved below vein 5. Hind wing with orange patch at base, extending on inner area almost to tornus; two conjoined hyaline spots beyond the cell, a streak below vein 2, and a small spot between veins 2 and 4.

♀. Tegulæ orange; wings small; fore wing with small orange patch at base of costa, an elongate patch above vein 2; hind wing with the orange markings at base reduced.

Hab. BRAZIL, Rio Grande do Sul, 1 ♂; BOLIVIA; ARGENTINA, Cordoba. *Exp.*, ♂ 32, ♀ 28 millim.

Genus DYCLADIA.

Type.
Dycladia, Feld. Reis. Nov. pl. 102. f. 20 (1874), non. descr. ... *correbioides*.

Proboscis well-developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd moderate and porrect; antennæ with the shaft thickened at middle, bipectinate, with short branches dilated at extremity; tibiæ with the spurs short. Fore wing rather long and narrow; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; veins 2 and 4 from angle; 3 from 4 near margin, 5 obsolescent; 6, 7 from upper angle.

A. Abdomen with orange lateral stripes.
  *a*¹. Fore and hind wings without yellow markings ...... *melæna*.
  *b*¹. Fore and hind wings with yellow markings .... *lucetius*.
B. Abdomen with yellow lateral patches at base only ...... *correbioides*.

647. Dycladia melæna, n. sp. (Plate XI. fig. 8.)

♀. Black; antennæ white towards tips; back of head and tegulæ with orange patches; abdomen with lateral orange fasciæ of conjoined spots. Fore wing with small obsolescent semihyaline patch in cell and elongate patch below the cell; short semihyaline streaks between veins 3 and 7, the lowest nearly reaching termen. Hind wing with hyaline streak below the cell; a slight streak in lower end of cell, and small spots above and below vein 4.

Hab. Bolivia, Rio Songo (*Garlepp*), 1 ♀ type. *Exp.* 24 millim.

Subsp. 1. Fore wing without the hyaline patches in and below cell.

Hab. Brazil, Leopoldina, Coll. Staudinger.

648. Dycladia lucetius.

Sphinx lucetius, Stoll, Pap. Exot. iv. pl. 357. D (1781), Kirby, Cat. Het. p. 145.
Eurata transiens, Wlk. vii. 1615 (1856), Kirby, Cat. Het. p. 145.

♂. Head black, with the base of palpi and two patches on vertex orange; antennæ white at tips; thorax black, with orange at base of tegulæ and patagia; abdomen black, with broad lateral orange stripes, the extremity blue-black. Fore wing with the veins yellow; yellow fasciæ below base of costa and above inner margin, the latter yellow-brown outwardly; hyaline streaks in and below cell; a large black discocellular spot with yellow-brown below it; the outer half of inner area black; four hyaline streaks beyond the cell; a very large apical black patch edged with yellow, and with a yellow marginal spot between it and the inner black area. Hind wing hyaline, with some yellow at base of costal and inner margins; the terminal black band very wide on apical area and towards tornus.

♀ with the yellow-brown on fore wing replaced by black.

Hab. Brazil, São Paulo (*Jones*), 2 ♂; Lr. Amazons, Chaves (*Austen*), 1 ♀. *Exp.* 22–28 millim. Type † *transiens* in Mus. Oxon.

649. Dycladia correbioides.

Dycladia correbioides, Feld. Reis. Nov. pl. 102. f. 20 (1874); Druce, Biol. Centr.-Am., Het. i. p. 61; Kirby, Cat. Het. p. 145.

Head black; antennæ white at tips; palpi banded with orange; some orange above frons and eyes, and some blue on vertex of head; thorax orange, with black dorsal stripe; abdomen black, with orange lateral patches at base and lateral blue bands on following segments. Fore wing orange, with black patch in end of cell conjoined to a large patch between the cell, inner margin, and outer margin above tornus; a large apical black patch; the veins pale. Hind wing with the basal half orange, the outer half black.

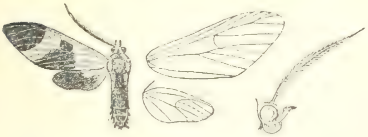

Fig. 136.—*Dycladia correbioides*, ♂. $\frac{1}{1}$.

Hab. Mexico (*Godman, Trujillo, Brooks, H. H. Smith*); Guatemala (*Champion, Rodriguez*); Costa Rica (*Rogers, Zurcher, Underwood*); Panama, Chiriqui (*Champion*), Godman-Salvin Coll.; Colombia, Cundinamarca. *Exp.* 34 millim.

Genus EUCHROMIA.

	Type.
Euchromia, Hübn. Verz. p. 121 (1827)	*sperchia.*
Phalanna, Wlk. i. 218 (1854)	*polymena.*
Hira, Wlk. i. 220 (1854)	*sperchia.*

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ with the shaft slightly dilated at middle, bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs short; abdomen of male with ventral valve covering basal segments. Fore wing with veins 3, 4, 5 from angle of cell, or 3 from near angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell moderate; veins 2 and 4 stalked or from angle, 3 and 5 absent; 6, 7 stalked or from upper angle.

A. Wings with the markings yellow.
a. Tegulæ and patagia dark red.
a^1. Hind wing with the basal patches dark red ...... *madagascariensis.*
b^1. Hind wing with the basal patches orange .... *amœna.*
b. Tegulæ black and blue.
a^1. Patagia with reddish-orange patches.
a^2. Wings with the markings pale yellow .... *formosa.*
b^2. Wings with the markings golden-orange .... *lethe.*
b^1. Patagia black and blue.
a^2. Shoulders without white spots; abdomen with the band on 4th segment orange-red .... *sperchia.*
b^2. Shoulders with white spots; abdomen with the band on 4th segment yellowish white .... *horsfieldi*
c. Tegulæ crimson; patagia black and blue .... *polymena.*
B. Wings with the markings hyaline.
a. Tegulæ crimson.
a^1. Abdomen with the crimson bands on 4th and 5th segments complete dorsally.
a^2. Fore wing with hyaline spot below vein 3; hind wing with the hyaline on basal area extending to near the postmedial patch .... *mathewi.*

*b*⁴. Fore wing without hyaline spot below vein 3; hind wing with the hyaline patches widely [illegible] [illegible]

*b*¹. Abdomen with the crimson band on 4th and 5th segments incomplete dorsally.

*a*². Patagia with yellow patches at base; abdomen with orange ventral bands on 1st four segments. *gemmata.*

*b*². Patagia with small white spots at base; abdomen without ventral orange bands .... *rubricollis.*

*c*¹. Abdomen with crimson band on 4th segment only. *cincta.*

b. Tegulæ yellow.

*a*¹. Abdomen with the terminal segments edged with crimson [illegible]

*b*¹. Abdomen with the terminal segments edged with blue, a broad orange band on 4th segment ..... *isis.*

c. Tegulæ black.

*a*¹. Abdomen with orange-red bands on 3rd and 4th segments, the former incomplete dorsally .... *lurlina.*

*b*¹. Abdomen with orange bands, the band on 1st segment brown, on 2nd and 3rd interrupted dorsally by blue .... *cyanitis.*

*c*¹. Abdomen with crimson bands incomplete dorsally.

*a*². Abdomen with four or five ventral bands.

*a*³. Wings shot with brilliant blue; hind wing with hardly a trace of hyaline below base of cell .... [illegible]

*b*³. Wings not shot with blue; hind wing with two hyaline streaks below base of cell ...... [illegible]

*b*². Abdomen with three ventral bands .... *dubia.*

*d*¹. Abdomen with crimson bands complete dorsally.

*a*². Abdomen with crimson bands on 4th and 5th segments, the terminal segments without bands. *walkeri.*

*b*². Abdomen with crimson segmental lines on terminal segments.

*a*³. Abdomen with complete yellow band on 1st segment followed by blue bands .... *tria.*

*b*³. Abdomen with orange spots on 1st segment not followed by blue bands.......................... *paula.*

*c*². Abdomen with broad crimson bands on terminal segments.

*a*³. Abdomen with the bands on basal segments blue [illegible]

*b*³. Abdomen with the bands on basal segments orange [illegible]

*e*¹. Abdomen with orange bands on 1st and 4th segments [illegible]

650. Euchromia madagascariensis.

Glaucopis madagascariensis, Boisd. Faun. Mad. p. 83, pl. 11. f. 4 (1833); Kirby, Cat. Het. p. 117.

♀. Bronze-black; antennæ white at tips; frons white; shoulders with white spots; tegulæ and patagia deep red edged with black; thorax at sides with white spots; abdomen with the 1st segment pale orange, becoming white at sides; the 4th segment deep red; ventral surface with medial white band. Fore wing with golden-yellow spot in cell, an elongate patch below the cell, its basal half deep red; an oblique series of four spots beyond the cell between veins 3 and 7. Hind wing with deep red patches at base in cell, below the cell, and on inner area; a large golden-yellow patch beyond the cell between veins 2 and 7.

Hab. Madagascar, 2 ♀. *Exp.* 54 millim.

651. Euchromia amœna. (Plate XI. fig. 2.)

Phalanna amœna, Möschl. Stett. Ent. Zeit. xxxiii. p. 350 (1872); Kirby, Cat. Het. p. 118.
Euchromia africana, Butl. Journ. Linn. Soc., Zool. xii. p. 364 (1876); Kirby, Cat. Het. p. 117.

♂. Black; antennæ white at tips; frons and a spot on shoulders white; tegulæ and patagia orange-red edged with black; sides of thorax and coxæ with white patches; abdomen with the 1st segment orange-yellow, becoming white at sides; the 4th segment orange-red; ventral surface with broad medial white band. Fore wing with white speck at base; a golden-yellow patch in cell and an elongate patch below the cell becoming red towards base; an oblique band of four spots beyond the cell between veins 3 and 7. Hind wing with golden-yellow patches in and below cell and on inner area, the patch below the cell extending to origin of vein 2; a large patch beyond the cell between veins 2 and 7.

♀ without white on the coxæ.

Hab. Br. E. Africa (*Gregory*); Delagoa Bay (*Monteiro*); Natal, type *africana*; Zululand. *Exp.* 46–54 millim. Type † in Coll. Staudinger.

652. Euchromia formosa.

Glaucopis formosa, Guér. Icon. R. Anim., Ins. p. 501, pl. 84 *bis.* f. 10 (1829); Boisd. Faun. Madag. p. 82, pl. 11. f. 3.
Glaucopis folletii, Gray, Griff. Anim. King. xv. pl. 120. f. 10 (1833); Kirby, Cat. Het. p. 117.

♂. Black; head and thorax suffused with metallic blue; antennæ white at tips; patagia with bilobed orange-red patches; coxæ white; abdomen with orange-red bands on 1st and 4th segments, the former sometimes almost white, the other segments with metallic blue bands; ventral surface black, with broad medial white band. Fore wing with metallic blue patches at base and on discocellulars; a pale yellow wedge-shaped patch in the cell and elongate patch below the cell; a series of four spots beyond the cell between veins 3 and 7, sometimes with a small spot below vein 3. Hind wing with yellowish-white basal patch in and below cell and on inner area; an irregular pale yellow patch beyond the cell between veins 2 and 7.

♀ with the coxæ black.

Ab. 1. With the markings pale ochreous instead of pale yellow. —Wasin.

Hab. Br. E. Africa, Wasin (*Gunn*); Madagascar (*Pfeiffer*); Natal (*Burrows*, *Marshall*); Cape (*Trimen*). *Exp.* 54–58 millim.

653. Euchromia lethe.

Zygæna lethe, Fabr. Syst. Ent. p. 553 (1775). Kirby, Cat. Het. p. 117.
Sphinx eumolphus, Cram. Pap. Exot. iii. pl. 197 D (1779).
Euchromia fulvida, Butl. Trans. Ent. Soc. 1888, p. 112, pl. 4. f. 5; Kirby, Cat. Het. p. 117.

♂. Black-brown; antennæ white at tips; head and thorax suffused with metallic blue; patagia with bilobed orange-red patch; coxæ white; abdomen with the 1st segment orange, often becoming white at sides, the next two segments varying from silvery blue to white, the 3rd with orange-red lateral spots; 4th segment orange-red, 5th white, terminal segments banded with blue; ventral surface black, with white medial band. Fore wing with metallic blue at base and on discocellulars; a golden-yellow wedge-shaped patch in cell and elongate patch below the cell; four spots beyond the cell between veins 3 and 7, the two lower placed nearer the margin. Hind wing with hyaline yellow patches in and below base of cell and on inner area; a large patch beyond the cell between veins 2 and 7.

♀ with blue patches on coxæ.

Ab. 1. Abdomen without the blue bands.—Congo.

Hab. Sierra Leone (*Mitford*); Old Calabar (*Miss Kingsley*); Niger; Monbuttu, Kangasi (*Emin Pasha*); Congo (*Curror*), type *fulvida*; Angola (*Monteiro*). *Exp.* 46–54 millim.

654. Euchromia sperchia.

Sphinx sperchia, Cram. Pap. Exot. ii. pl. 146. C (1777); Kirby, Cat. Het. p. 117.
Zygæna guineensis, Fabr. Ent. Syst. p. 551 (1775).
Euchromia interstans, Wlk. i. 221 (1854).
Euchromia leonis, Butl. Journ. Linn. Soc., Zool. xii. p. 363 (1876); id. Ill. Het. i. p. 22, pl. 10. f. 2; Kirby, Cat. Het. p. 117.
Euchromia bellula, Mab. Ann. Soc. Ent. Fr. (6) x. p. 36 (1890); Kirby, Cat. Het. p. 903.

♂. Black; head and thorax shot with brilliant metallic blue; thorax at sides and coxæ with white patches; abdomen with the 1st segment fulvous orange, the 4th orange-red, the 2nd and 3rd with three metallic blue spots, the terminal segments wholly metallic blue; ventral surface black, with white medial band with two white points in front of it. Fore wing with metallic blue at base; a wedge-shaped golden-yellow patch in cell and elongate patch below the cell; four spots, sometimes small, beyond the cell between veins 3 and 7, the two lower placed nearer the margin. Hind wing with golden-yellow patch in cell; a patch below the cell, and a large patch beyond the cell between veins 2 and 7.

♀ without white on coxæ.

Hab. Ashanti, ♂ ♀, type *interstans*; Sierra Leone (*Foxcroft*), 2 ♂ 1 ♀, type *leonis*. *Exp.* 50–52 millim. Type † *bellula* in Coll. Mabille.

Subsp. 1. *splendens*, Butl. Trans. Ent. Soc. 1883, p. 113, pl. 4. f. 4; Kirby, Cat. Het. p. 117.

Hind wing with the patch below the cell extending to origin of vein 2.

Hab. Cameroons, type; Old Calabar (*Cockburn, Steadley*).

655. Euchromia horsfieldi.

Phalanna horsfieldi, Moore, P. Z. S. 1859, p. 200, pl. 60. f. 13; id. Lep. E. I. C. p. 328, pl. xiv, ff. 9, 9 *a*; Kirby, Cat. Het. p. 118.

♂. Black; vertex of head and thorax largely suffused with metallic blue; frons, a line behind eyes, spots on shoulders, sides of thorax, and coxæ white; abdomen with bands on 1st and 4th segments varying from pale orange to white, the other segments with metallic blue bands. Fore wing with metallic blue spots at base of costa and on discocellulars; a wedge-shaped orange-yellow patch in cell; an elongate patch below the cell often indented by a small or large spot at middle of its lower edge, or divided into two patches; a series of four elongate spots beyond the cell between veins 3 and 7. Hind wing with orange patch in base of cell; patches below the cell and on inner area which are usually white, but sometimes partly orange; a large orange patch beyond the cell between veins 2 and 7.

♀ without white on coxæ.

Hab. Borneo (*Hose*); Java (*Horsfield*), type; Sambawa; Bali (*Doherty*). *Exp.* 42–44 millim.

Larva reddish ochreous, with long paired black dorsal tufts on 2nd and 3rd somites; a lateral series of tubercles bearing black hairs; somites 4–11 with dorsal ridges of black and blue hair extending to above lateral tubercles; the last two somites with dorsal setiferous tubercles. Food-plant *Dioscorea*.

Cocoon thickly clothed with black and blue hairs.

656. Euchromia polymena.

Sphinx polymena, Linn. Syst. Nat. i. p. 494 (1858); Cram. Pap. Exot. i. pl. 13. D; Moore, Lep. Ceyl. ii. p. 39, pl. 94. ff. 6, 6 *a*; Hmpsn. Moths Ind. i. p. 227; Kirby, Cat. Het. p. 118.

♂. Black; white patches on frons, shoulders, sides of thorax, and coxæ; vertex of head and thorax suffused with metallic blue; tegulæ crimson; abdomen with crimson bands on 4th and 5th segments; slight blue bands on 2nd and 3rd segments, becoming white

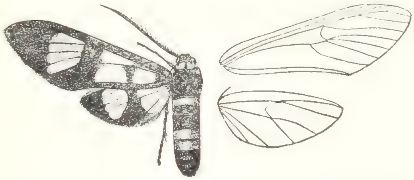

Fig. 137.—*Euchromia polymena*, ♂. 1/1. (From Moths Ind., vol. i.)

at sides; blue bands on terminal segments. Fore wing with blue at base and on discocellulars; a wedge-shaped golden-orange patch in cell; patches below base and end of cell and four elongate spots beyond the cell between veins 3 and 7. Hind wing with basal orange patches in and below cell and on inner area; a large patch beyond the cell between veins 2 and 7.

Ab. 1. Wings with the markings very pale dull ochreous.—Sangir.

Ab. 2. Tegulæ and bands of abdomen reddish orange.—Upper Burma.

Hab. Bengal; Bombay (*Swinhoe*); Nilgiris (*Hampson*); Ceylon (*Yerbury*); Upper Burma (*Watson*); Andamans, Moore Coll.; Sangir (*Doherty*). *Exp.* 48 millim.

Subsp. 1. *celebensis*, Butl. Journ. Linn. Soc., Zool. xii. p. 364 (1876); Kirby, Cat. Het. p. 118.
polymena, var. *kuhleri*, Röber, Iris, i. pp. 202, 339 (1887).

Fore wing with the elongate spot above vein 5 reduced to a narrow streak.

Hab. Celebes (*Wallace*), type.

Subsp. 2. *orientalis*, Butl. Journ. Linn. Soc., Zool. xii. p. 364 (1876); id. Trans. Ent. Soc. 1888, p. 114, pl. 4. f. 6; Hmpsn. Moths Ind. i. p. 227; Kirby, Cat. Het. p. 118.
fraterna, Butl. Journ. Linn. Soc., Zool. xii. p. 364 (1876); Kirby, Cat. Het. p. 118.
laura, Butl. Journ. Linn. Soc., Zool. xii. p. 364 (1876); Kirby, Cat. Het. p. 118.
siamensis, Butl. Journ. Linn. Soc., Zool. xii. p. 365 (1876); Kirby, Cat. Het. p. 118.
formosana, Butl. Trans. Ent. Soc. 1888, p. 114, pl. 4. f. 7; Kirby, Cat. Het. p. 118.

Abdomen with crimson bands on 4th, 5th, and 6th segments.—Manilla; Formosa; Burma, type.

Ab. 1. *formosana*: fore wing with the two orange patches below the cell conjoined, though more or less indented by spots.—Formosa, type; Burma.

Ab. 2. Tegulæ and bands of abdomen orange, the bands on 4th segment interrupted by black lobes from the 3rd, uneven on the two sides.—Lower Burma, 1 ♂.

Ab. 3. *laura*: with the orange patches below the cell of each wing absent.—E. Indies, 1 ♀, type.

Ab. 4. *fraterna*: with the crimson band on 6th segment of abdomen incomplete and only occupying its distal half.—Up. Burma; Moulmein, type.

Ab. 5. *siamensis*: with a crimson band also on 7th segment of abdomen.—Manila, 2 ♂ 1 ♀; Siam, 1 ♀, type.

Hab. Philippines, Manilla (*J. J. Walker*); Formosa (*Holson*); Burma, Moulmein (*Clerk*); Lower Burma and Tenasserim (*Bingham*, *Watson*); Siam (*Bowring*).

Larva reddish, with red setiferous lateral tubercles; long dorsal tufts of black hair on 2nd and 3rd and last two somites, and short dense medial dorsal tufts. Food-plant, *Convolvulaceæ*.

Cocoon thickly clothed with pale hair.

657. Euchromia mathewi.

Euchromia mathewi, Butl. Trans. Ent. Soc. 1888, p. 111, pl. 4. f. 3; Kirby, Cat. Het. p. 119.

♂. Black; frons, a line behind eyes, spots on shoulders, and patches on sides of thorax and coxæ white; vertex of head and patagia shot with blue; tegulæ crimson; abdomen with the 1st segment yellowish white, the next two and terminal segments banded with blue; the two medial above and three on ventral surface with crimson bands. Fore wing with patches of metallic blue at base, in cell, and on discocellulars; an elongate hyaline spot below base of cell, a spot at middle of cell and patch below middle; an elongate spot above vein 6 and three spots between veins 2 and 5. Hind wing with hyaline patch in base of cell; a patch below the cell separate from the patch beyond the cell between veins 2 and 7.

♀ with the coxæ blue; hind wing with the hyaline patch below the cell confluent with the patch beyond it.

Hab. Solomon Islands (*Mathew*), 2 ♂, 1 ♀, type. *Exp.*, ♂ 38, ♀ 44 millim.

658. Euchromia œnone.

Euchromia œnone, Butl. Journ. Linn. Soc., Zool. xii. p. 365 (1876); id. Trans. Ent. Soc. 1888, p. 111, pl. 4. f. 2; Kirby, Cat. Het. p. 119.

♂. Black; frons and patches on sides of thorax and coxæ white; vertex of head and patagia metallic blue; tegulæ crimson; shoulders orange-yellow; abdomen with the 1st segment orange, the two next and three terminal segments with blue dorsal bands, the 2nd segment with lateral orange patch, the 4th and 5th with crimson bands; crimson ventral bands on three medial segments. Fore wing with metallic blue at base and on discocellulars; an elongate hyaline spot below base of cell; a spot in middle of cell and patch below it; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline patches in and below base of cell and on inner area, and a maculate oblique band beyond the cell between veins 2 and 7; a blue patch on discocellulars.

♀. Coxæ blue.

Ab. 1. With the hyaline spots on fore wing below cell, in cell, and above vein 6 yellowish.

Hab. Solomons (*H.M.S.* '*Herald*'), type, Alu, Malayta, Sta. Anna, Guadalcanar (*Woodford*). *Exp.* 50 millim.

659. Euchromia gemmata. (Plate XI. fig. 17.)

Euchromia gemmata, Butl. A. M. N. H. (5) xix. p. 216 (1887); Kirby, Cat. Het. p. 119.

♀. Black; frons and a line behind the eyes white; vertex of head metallic blue; tegulæ crimson; base of patagia yellowish white; some blue on patagia and vertex of thorax and legs; some white on sides of thorax; abdomen with the 1st segment orange, the next five segments with blue dorsal bands which on the 1st four become whitish at sides and orange-red ventrally. Fore wing with patches of metallic blue at base and on discocellulars; a short hyaline streak below base of cell; a quadrate spot in end of cell and patch below the end; an elongate spot above vein 6 and two between veins 3 and 5. Hind wing with hyaline streaks in and below cell and on base of inner margin; a blue discocellular patch; an oblique hyaline patch beyond the cell between veins 2 and 7.

Hab. Solomon Islands, Alu, 1 . (*Woodford*), type. *Exp.* 50 millim.

660. Euchromia rubricollis. (Plate XI. fig. 3.)

Hera rubricollis, Wlk. xxxi. 99 (1864). Kirby, Cat. Het. p. 119.

♂. Black; frons, a line behind the eyes, shoulders, patches on sides of thorax and coxæ white; tegulæ magenta; patagia and vertex of thorax suffused with metallic blue; abdomen with yellowish-white lateral patches on 1st segment, the other segments with blue and white dorsal bands, the three medial segments with crimson lateral patches. Fore wing with metallic blue-green streaks below base of costa and on vein 1; an elongate hyaline spot below base of cell; a quadrate spot in end of cell and patch below it; a blue discocellular patch; hyaline spots between veins 3 and 5 and above 6. Hind wing with hyaline patches in and below cell; an oblique patch beyond the cell between veins 2 and 7; a blue line on discocellulars.

♀. Coxæ blue.

Hab. New Hebrides, type (*Mathew*); Solomons (*Woodford*). *Exp.* 48–52 millim.

*661. Euchromia cincta.

Glaucopis cincta, Montr. Ann. Soc. Linn. Lyon, xi. p. 252 (1864); Kirby, Cat. Het. p. 119.

Black-brown; tegulæ crimson; prothorax with four blue patches; abdomen with the 1st segment white, 2nd and 3rd blue in front, with white lateral and dorsal patches, 4th with crimson band, the following segments with dorsal and lateral yellowish-white patches. Fore wing with hyaline spots below base of cell, in and below middle of cell, between veins 2 and 5 and above 6. Hind wing with four yellow patches.

Hab. New Caledonia. *Exp.* 44 millim. This species is unknown to me.

662. Euchromia æmulina. (Plate XI. fig. 18.)

Euchromia æmulina, Butl. P. Z. S. 1877, p. 473; Kirby, Cat. Het. p. 119.

♂. Black; frons, tegulæ, and shoulders white and yellow; vertex of head and thorax shot with metallic blue; abdomen with the 1st segment orange-yellow, the next two segments edged with bluish white and yellow, the terminal segments with crimson; ventral surface crimson. Fore wing with some metallic blue at base and on discocellulars; a hyaline streak below base of cell; hyaline spots in and below cell; an elongate spot above vein 6, and two between veins 3 and 5. Hind wing with hyaline streaks in and below cell and on inner area at base, and a patch beyond the cell between veins 2 and 7.

Hab. New Guinea, 1 ♂ (*MacFarlane*), type. *Exp.* 40 millim.

663. **Euchromia isis.** (Plate XI. fig. 4.)

Glaucopis isis, Boisd. Voy. Astrolabe, Lép. p. 193 (1832); Kirby, Cat. Het. p. 119.

♂. Black; frons, a line behind the eyes, and patches on sides of thorax and coxæ white; vertex of head metallic blue; tegulæ orange-yellow; shoulders white; patagia and vertex of thorax suffused with metallic blue; abdomen with orange bands on 1st, 3rd, and 4th segments and metallic bluish segmental lines on 2nd and terminal segments. Fore wing with metallic blue at base and on discocellulars; a hyaline streak below base of cell, spots in and below end of cell; an elongate spot above vein 6, and two between veins 3 and 5. Hind wing with hyaline patches in and below cell and beyond the cell between veins 2 and 7; a metallic blue patch on discocellulars.

Hab. Duke of York Island, 1 ♂. *Exp.* 38 millim.

664. **Euchromia lurlina.** (Plate XI. fig. 19.)

Euchromia lurlina, Butl. Trans. Ent. Soc. 1888, p. 110.

♂. Black; frons white; vertex of head and thorax shot with blue; shoulders with yellow spots; sides of thorax and coxæ with white patches; abdomen with the 1st segment pale yellow spotted with orange, the other segments with metallic blue bands except the 4th segment which has an orange-red band, and the 3rd with orange lateral patches. Fore wing with metallic blue at base and on discocellulars; a hyaline spot below base of cell; a spot in end of cell and patch below it; an elongate spot above vein 6, and two spots between veins 3 and 5. Hind wing with hyaline spots in and below cell, and a patch beyond it between veins 2 and 7; a blue discocellular patch.

♀. Coxæ blue.

Hab. Thursday Island (*Gerrard*), 1 ♂ type; N. Guinea, Fergusson Isl. (*Meek*), 1 ♂ 1 ♀. *Exp.* 46 millim.

*665. **Euchromia cyanitis.** (Plate XI. fig. 5.)

Euchromia cyanitis, Meyr. Trans. Ent. Soc. 1889, p. 457; Kirby, Cat. Het. p. 119.

♀. Black; head and thorax suffused with deep blue; shoulders with brown spots; pectus with white patches; abdomen with the band on 1st segment brown, the next five segments with orange bands, on the 2nd and 3rd interrupted on dorsum by metallic blue. Fore wing with metallic blue lunule on discocellulars; hyaline spots below base of cell, in and below middle of cell, between veins 3 and 5 and above vein 6, with a slight streak below vein 6. Hind wing with metallic blue lunule on discocellulars; hyaline patches in and below base of cell, and an oblique band beyond end of cell between veins 7 and 2.

Hab. N. Guinea, 1 ♀; type ♀ in Coll. Meyrick. *Exp.* 50 millim.

666. **Euchromia bourica.** (Plate XI. fig. 21.)

Glaucopis bourica, Boisd. Voy. Astrolabe, Lep. p. 194 (1832); Kirby, Cat. Het. p. 119.
Hyda calipennis, Wlk. xxxi. 99 (1864), Kirby, Cat. Het. p. 119.
Glaucopis [illegible], Röber, Iris, i. pp. 201, 338, pl. 7. f. 10 (1887); Kirby, Cat. Het. p. 119.

♂. Black, shot with metallic blue; frons and coxæ white; abdomen with blue band on 3rd segment; lateral crimson patches and ventral bands on the four or five medial segments. Fore wing with hyaline spot below the base of cell; spots in and below middle of cell; a spot above vein 6 and two between veins 3 and 5. Hind wing with hyaline streak in base of cell and minute streaks below it; an oblique maculate band beyond the cell between veins 2 and 7.

Hab. Amboina, 2 ♂ (*Wallace*), type *calipennis*; Ceram; Bourou. *Exp.* 46 millim.

667. **Euchromia amboinica**, n. sp. (Plate XI. fig. 6.)

♂. Black; frons with some white; vertex of head, tegulæ, shoulders, and patagia with patches of metallic blue; fore coxæ white; abdomen with blue dorsal bands on 2nd and 3rd segments, broad ventral crimson band incomplete dorsally. Fore wing with hyaline spots below base and in and below middle of cell; elongate spots between veins 3 and 5 and above 6. Hind wing with hyaline streaks at base, in and below cell, and on inner area, and a patch beyond cell between veins 2 and 7.

♀ with the fore coxæ black; fore wing with hyaline streak between veins 5 and 6; abdomen sometimes with some orange on basal segment.

Hab. Amboina, 1 ♂ type, ♀ in Coll. Staudinger. *Exp.*, ♂ 38, ♀ 44 millim.

*668. **Euchromia dubia.** (Plate XI. fig. 20.)

Glaucopis dubia, Röber, Iris, i. pp. 201, 339, pl. 7. f. 12 (1887); Kirby, Cat. Het. p. 119.

♂. Black; some white on lower part of frons; abdomen with orange dorsal patch on 1st segment; dorsal blue bands on 2nd and 3rd segments; ventral and lateral crimson bands on hinder part of 3rd and on 4th and 5th segments, sometimes conjoined on ventral surface. Fore wing with brilliant blue below base of costa and median nervure, and a discocellular spot; hyaline spots below base, in and below middle of cell; spots beyond the cell between veins 3 and 5 and above 6. Hind wing with blue discocellular spot; hyaline streaks at base, in and below cell, and on inner area, and a series of spots beyond the cell between veins 2 and 7, the spot above vein 4 small.

Hab. CERAM, type † in Coll. Röber. *Exp.* 48 millim.

669. **Euchromia walkeri**, n. sp. (Plate XI. fig. 7.)

♂. Black; head and thorax brilliant metallic blue; frons and patches on sides of thorax and coxæ white; abdomen with slight yellowish-white band on 1st segment, the 2nd and 3rd segments with blue dorsal bands, and the 4th and 5th, and the 3rd at sides and below, with crimson bands. Fore wing with blue patches at base and on discocellulars, hyaline white spot below base of cell, spots in and below middle of cell, a spot above vein 6, and two spots between veins 3 and 5. Hind wing with hyaline patches in and below cell and on inner area; an oblique maculate band beyond the cell between veins 2 and 7; a patch of blue on discocellulars.

Hab. TERNATE (*J. J. Walker*), 1 ♂ type. *Exp.* 48 millim.

670. **Euchromia iria.**

Glaucopis irius, Boisd. Voy. Astrolabe, Lép. p. 192, pl. 5. f. 8 (1832); Kirby, Cat. Het. p. 119.
Glaucopis boisduvalii, Montr. Ann. Sci. Phys. Lyon, (2) viii. p. 409 (1856).
Hira aruica, Wlk. xxxi. 98.

♂. Black; head and thorax shot with brilliant metallic blue; frons, spots on shoulders, and patches on sides of thorax and coxæ white; abdomen with the 1st segment pale orange, the next two dorsally banded with blue, the next three with crimson; ventral surface with four crimson bands. Fore wing with patches of blue at base and on discocellulars; a hyaline spot below base of cell; a spot in cell and patch below it; an elongate spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline patches at base, in and below cell, and on inner area; an oblique maculate band beyond the cell between veins 2 and 7, and a patch of blue on discocellulars.

♀ without white on coxæ; abdomen with three crimson bands above, four below.

Hab. MOLUCCAS; ARU (*Wallace*), type *aruica*; NEW GUINEA, Kirwini, Trobriand Is. (*Meek*). *Exp.* 46–50 millim.

671. **Euchromia paula.** (Plate XVII. fig. 8.)

Glaucopis paula, Röber, Iris, i. pp. 202, 339, pl. 7. f. 11 (1887); Kirby, Cat. Het. p. 119.

Black-brown; abdomen with conjoined subdorsal and lateral orange-red spots on 1st segment, the 4th, 5th, and 6th segments with fine terminal orange red lines, the terminal segment dark; ventral surface with four scarlet bands expanding laterally. Fore wing with small hyaline spot below base of cell, spots in and below middle of cell, between veins 3 and 5 and above 6. Hind wing with three hyaline streaks at base, a small spot between veins 2 and 5 and a larger spot above 5.

Hab. E. CELEBES, Tombugu, 1 ♀, cotype. *Exp.* 36 millim.

672. Euchromia creusa.

Sphinx creusa, Linn. Syst. Nat. i. p. 494 (1758); Clerck, Icones, pl. 46. f. 5; Kirby, Cat. Het. p. 118.
Sphinx chelias, Cram. Pap. Exot. ii. pl. 150. D (1777).
Sphinx crus, Stoll, Pap. Exot. iv. pl. 368. A (1782).
Glaucopis ganymede, Doubl. Stokes' Australia, i. p. 519, pl. 3. f. 3 (1846).

♂. Black; vertex of head and thorax shot with brilliant metallic blue; frons and coxæ white; abdomen with dorsal blue bands on first three segments, the 1st sometimes with orange patch and the 3rd sometimes edged with crimson; the last three segments with crimson bands and a terminal crimson patch; ventral surface with five crimson bands. Fore wing with blue patches at base and on discocellulars; a small hyaline spot below base of cell, a spot in cell and patch below it; a spot above vein 6 and two spots between veins 3 and 5. Hind wing with hyaline spot below base of cell; an oblique maculate band beyond the cell between veins 2 and 7, and a blue patch on discocellulars.

♀ without white on coxæ; abdomen with three crimson bands above, four below.

Ab. 1. Abdomen without blue bands.—Ceram, Queensland.

Hab. CELEBES (*Pfeiffer*); CERAM; GILOLO (*Wallace*); Ké Is. (*Challenger*), Fergusson Is. (*Meek*); N. GUINEA; AUSTRALIA, Lizard Is. (*MacGillivray*); Thursday Is. (*Forbes*); Queensland (*McFarlane*); NEW HEBRIDES (*Forbes*); SOLOMONS (*Woodford*); PELEW Is. (*Mathew*). *Exp.* 54 millim.

673. Euchromia auranticincta, n. sp. (Plate XI. fig. 22.)

♂. Black; frons, a line behind eyes, spots on shoulders, pectus and coxæ white; head, tegulæ, and patagia with patches of brilliant blue; abdomen with orange bands on first three segments and crimson bands on the next five. Fore wing with blue streaks at base, on inner area extending to beyond middle; a discocellular spot; hyaline spots below base, in and below middle of cell, and beyond the cell between veins 3 and 5 and above 6. Hind wing with blue discocellular spot; hyaline streaks at base, in and below cell, and on inner area; a patch beyond the cell between veins 2 and 7.

♀. Coxæ black; abdomen with four crimson bands.

Hab. N. GUINEA, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 52 millim.

674. Euchromia magna.

Syntomis magna, Swinh. Trans. Ent. Soc. 1891, p. 133, pl. 8. f. 1; Hmpsn. Moths Ind. i. p. 227; Kirby, Cat. Het. p. 901.

Black with a slight purplish gloss; antennæ white at tips; white patches on sides of thorax and fore coxæ; abdomen with orange bands on basal and 4th segments. Fore wing with hyaline spot below base of cell; a spot in cell and patch below it; a spot above vein 6 and two between veins 3 and 5. Hind wing with hyaline patches at base, in and below cell, and on inner area; an irregular oblique band beyond the cell between veins 7 and 2.

Hab. N. Canara, type; Ceylon, Trincomali (*Yerbury*). *Exp.* 40–44 millim.

Genus SYNTOMEIDA.

	Type.
Syntomeida, Harris, Am. J. Sci. xxxvi. p. 316 (1839)	*ipomeæ.*
Hippola, Wlk. i. 222 (1854)	*ipomeæ.*

Proboscis well developed; palpi upturned, hardly reaching vertex of head, the 1st joint clothed with long hair; antennæ bipectinate, with moderate branches dilated at extremity, shorter in female, the shaft thickened beyond middle, especially in female; tibiæ with the spurs short. Fore wing long and narrow; vein 3 from close to angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, and often 11, stalked. Hind wing with the cell moderate; veins 2 and 4 shortly stalked; 3 from 2 just before margin; 5 absent; 6, 7 from upper angle.

Sect. I. Abdomen of male with ventral valve covering basal segments.

A. Abdomen with paired orange subdorsal patches on 1st, 4th, and 5th segments, the anal tuft orange	*joda.*
B. Abdomen with orange bands on each segment	*melanthus.*
C. Abdomen without orange markings.	
a. Fore wing with oblique postmedial series of spots	*syntomoides.*
b. Fore wing without postmedial spots	*vulcana.*

*675. Syntomeida joda.

Syntomedia joda, Druce, Biol. Centr.-Am., Het. ii. p. 333, pl. 71. f. 15 (1897).

♂. Head and thorax blue-black; vertex of head with metallic blue patch; tegulæ and patagia orange-yellow edged with black; fore coxæ with orange and white patches; legs streaked with white; abdomen black and silvery blue; orange subdorsal patches on 1st, 4th, and 5th segments; the ventral valve, a medial patch, and the anal tuft orange; wings black. Fore wing with a yellowish-white patch in and below middle of cell and a patch beyond the cell between veins 7 and 3. Hind wing with a yellowish-white patch on inner area below the cell and another beyond the cell.

Fore wing with vein 11 from the cell.

Hab. Mexico, Guadalajara (*Schaus*), 1 ♂. *Exp.* 38 millim. Type † in Coll. Schaus.

676. Syntomeida melanthus.

Sphinx melanthus, Cram. Pap. Exot. iii. pl. 248 C (1779); Druce, Biol. Centr.-Am., Het. i. p. 42; Kirby, Cat. Het. p. 122.
Sphinx nycteus, Stoll, Pap. Exot. iv. pl. 325. F (1780).
Euchromia apricans, Wlk. i. 224 (1854).
Syntomeida albifasciata, Butl. Journ. Linn. Soc., Zool. xii. p. 366 (1876); Druce, Biol. Centr.-Am., Het. i. p. 42; Kirby, Cat. Het. p. 123.

Black shot with dull bronze-green; antennæ white at tips; tegulæ, shoulders, and vertex of thorax with orange patches; sides of thorax and coxæ with whitish patches; abdomen with white band at base tinged with orange on dorsum, and pale or deep orange bands on the other segments; the ventral valve of male edged with yellowish; three white bands on medial segments. Fore wing with pale yellow quadrate spots below base of cell and in and below middle of cell; a series of four spots beyond the cell. Hind wing with hyaline white streaks in and below base of cell, and two pale yellow spots beyond the cell.

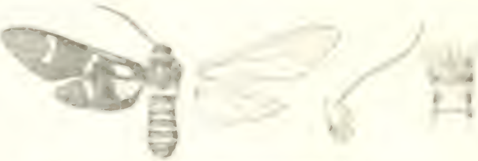

Fig. 138.—*Syntomeida melanthus*, ♂. $\frac{1}{1}$.

Ab. 1. *nycteus*: with the yellow spots more or less reduced, sometimes absent except for the spot below cell and speck in cell.

Ab. 2. Fore wing with the two yellow spots below the cell conjoined.

Ab. 3. *albifasciata*: with the bands of abdomen whitish.

Hab. Mexico; Guatemala; Costa Rica; Nicaragua, Godman-Salvin Coll.; Honduras, type *albifasciata*; Venezuela, type *apricans*. *Exp.* 50 millim.

677. Syntomeida syntomoides.

Glaucopis syntomoides, Boisd. Spec. Gén. Lép. i. pl. 16. f. 4 (1836); Kirby, Cat. Het. p. 123.
Glaucopis sauleyi, Guér. Icon. R. Anim., Ins. p. 502 (1844); Druce, Biol. Centr.-Am., Het. i. p. 43; Kirby, Cat. Het. p. 123.
Caloneta nivcifascia, Wlk. vii. 1628 (1856).
Glaucopis vidua, Ménétr. Cat. Lép. Pétersb. ii. p. 141, pl. 14. f. 6 (1857); Kirby, Cat. Het. p. 174.
Glaucopis vidua, var. *sparacula*, Ménétr. Cat. Lép. Pétersb. ii. p. 142.
Hippola wrighti, Gundl. Ent. Cuba, Lep. p. 243 (1881); Kirby, Cat. Het. p. 903.
Syntomeida angasi, Druce, P. Z. S. 1884, p. 321, pl. 30. f. 5.

Black shot with greenish blue; antennæ white at tips; sides of thorax and coxæ with white patches; abdomen either with a complete basal white band, sometimes with traces of another beyond it, or with its medial portion reduced to a spot, or absent, or the whole band absent; the three medial segments of abdomen with ventral white bands, the last often incomplete. Fore wing usually with one or two white points at base and sometimes slight hyaline streaks below the costa and in cell; a white or pale yellow spot below base of cell; a spot in end of cell with another below it, and series of four spots beyond the cell, the one below vein 6 often minute. Hind wing with hyaline basal patch consisting of three streaks and a curved series of three or four spots beyond the cell varying in size.

Ab. 1. *angasi*: abdomen with the ventral bands absent.

Ab. 2. *spiracula*: wings with all the markings much reduced; fore wing without the spots in cell or below vein 6; hind wing without the spot above vein 5.

Ab. 3. *vidua*: fore wing with the spot below middle of cell still more reduced; hind wing without the spot below vein 2.

Hab. MEXICO, type *niveifascia*, Cordova (*Rümeli*); BAHAMAS (*Chamberlain*); CUBA; SANTA LUCIA, DOMINICA (*Eliott*); BARBADOS (*Frampton*). *Exp.* 44 millim. Type † *angasi* in Coll. Druce.

678. Syntomeida vulcana.

Syntomeida vulcana, Druce, A. M. N. H. (6) iv. p. 83 (1889); Biol. Centr.-Am., Het. ii. p. 333, pl. 70. f. 25; Kirby, Cat. Het. p. 123.

♀. Blue-black; sides of thorax and hind coxæ spotted with white; abdomen with white dorsal point and subdorsal spots on 1st segment; sublateral white spots on three medial segments. Fore wing with white spots at base of costa; a yellowish-white spot below base of cell and a point in middle of cell. Hind wing with hyaline basal patch.

Hab. MEXICO, Guerrero (*H. H. Smith*), 2000 ft., 1 ♀ type, Godman-Salvin Coll. *Exp.* 54 millim.

SECT. II. Abdomen of male without ventral valve.

A.	Abdomen black, with six orange bands	*ipomeæ*.
B.	Abdomen blue-green, the last two segments crimson-red, white dorsal spots on basal segment and lateral spots on medial segments	*epilais*.

679. Syntomeida ipomeæ.

Glaucopis ipomeæ, Harris, Am. J. Sci. xxxvi. p. 316 (1839); Kirby, Cat. Het. p. 123.

Euchromia ferox, Wlk. i. 223 (1854); Butl. Ill. Het. i. p. 23, pl. 10. f. 7.

Glaucopis euterpe, Herr.-Schäff. Aussereur. Schmett. f. 430 (1856).

Head and thorax blue-black; tegulæ, shoulders, vertex, and sides of thorax with orange patches; coxæ orange; abdomen with broad orange bands on each segment; wings metallic blue-black. Fore wing with orange point at base; small yellowish-white spots below cell near base and at middle and beyond upper angle, often absent, and two spots beyond lower angle. Hind wing with hyaline white patch below base of cell.

Hab. U. S. A., Georgia, Florida; 2 ♂, 1 ♀, type *ferox*. *Exp.* 48 millim.

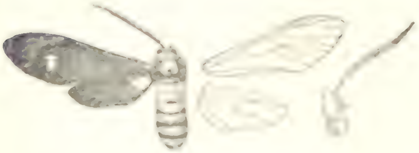

Fig. 139.—*Syntomeida ipomeæ*, ♂. ½.

680. Syntomeida epilais.

Euchromia epilais, Wlk. i. 227 (1854); Butl. Ill. Het. i. p. 23, pl. 8, f. 5; Druce, Biol. Centr.-Am., Het. i. p. 43; Kirby, Cat. Het. p. 123.

Blue-black; antennæ white at tips; sides of thorax and legs spotted with white; abdomen with two dorsal white spots on 1st segment with a point between them, followed by three lateral and two sublateral spots; the last two segments deep crimson-red. Fore wing with white spot at base of costa; a spot below middle of cell and small spot in cell towards upper angle; two spots beyond upper angle and two between veins 3 and 5. Hind wing with white spot beyond end of cell; the cilia white at middle of inner margin.

Fore wing with vein 11 from the cell; 4, 5 approximated for some distance.

Hab. Mexico, Jalapa (*Trujillo*), Yucatan (*Gaumer*); British Honduras (*Blancaneaux*). Godman-Salvin Coll.; Honduras, type. *Exp.* 52 millim.

Larva, Dyar, J. N.Y. Ent. Soc. iv. p. 72, pl. iii. f. 10, & Insect Life, ii. p. 360.

Egg hemispherical, minutely punctured, base flat; laid in masses under leaves.

Larva, mature. Head orange-red, palpi whitish, jaws dark; somites red, with shiny black warts in subdorsal space on somites 5–13; a subdorsal series; a suprastigmatic series; a stigmatic series behind spiracles; two subventral series; somites 2, 3, 4 with one series only; the cervical spot and anal plate with row of black points; the subdorsal and stigmatic series on somites 3, 4, and the suprastigmatic on 7–11, and the subdorsal on 12 & 13 with long pencils of fine black hair, the others with thin tufts of short hair; the subdorsal space on median somites posteriorly conjoined on dorsum; a series of spots in stigmatic space posteriorly, and a fainter series in subventral space sometimes almost forming a band; legs black, prolegs black on outer side; spiracles small and black. *Length* 30 millim. Food-plant, *Nerium odorum*.

Cocoon thin, formed of hair and silk.

Pupa depressed behind thorax, somewhat flat below; abdominal segments fixed, cremaster absent; orange, with black streaks, one on head, two on collar; two angulated lines on thorax;

lines on legs and antennæ; two large and four small streaks on wing-cases; abdominal segments with transverse bands. *Length* 17 millim.

Genus ENOPE.

	Type.
Trichela, Herr.-Schäff. Aussereur. Schmett. (1853), non descr...	*tolumnensis.*
Enope, Wlk. i. 208 (1854)	*tolumnensis.*

Proboscis well developed; palpi obliquely porrect and clothed with long hair; antennæ of male with short branches dilated at extremity; head, thorax, and abdomen clothed with long hair. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell moderate; veins 2 and 4 shortly stalked, 3 from 2 near margin or absent; 5 absent; 6, 7 very shortly stalked or from angle.

681. Enope tolumnensis.

Trichela tolumnensis, Herr.-Schäff. Aussereur. Schmett. f. 53 (1853); Butl. Ill. Het. i. p. 24, pl. 13. f. 10; Kirby, Cat. Het. p. 125.
Euchromia hirsuta, Wlk. i. 208 (1854).

Head, thorax, and abdomen black; palpi and antennæ whitish at tips; tegulæ with slight white spots; legs streaked with white; wings black slightly shot with green. Fore wing with slight ochreous streaks at base below costa; two semihyaline yellow streaks in cell; an elongate patch below the cell and a streak above vein 1; two spots beyond upper angle of cell, and an oblique series of three spots between bases of veins 2 to 5; cilia white at apex. Hind wing with whitish fascia below basal part of costa and a hyaline white fascia below the cell; a hyaline yellow patch in lower end of cell and beyond it towards termen; the cilia white at apex; the inner area black without green shot.

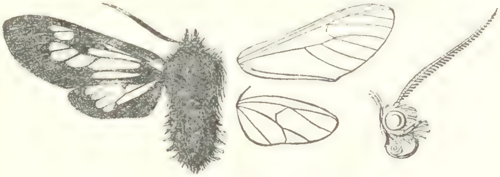

Fig. 140.—*Enope tolumnensis*, ♂. $\frac{1}{1}$.

Hab. COLOMBIA, Bogota, 1 ♂, type *hirsuta*. *Exp.* 50 millim.

Genus XANTHOMIS, nov.

Type, *X. grandis.*

Proboscis fully developed; palpi porrect, downcurved, extending about the length of head and clothed with rough hair; antennæ of female biserrate, the medial part of shaft dilated; thorax and abdomen clothed with woolly hair; tibiæ with the spurs short. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; veins 2 and 4 from angle; 3 from 2 just before margin; 5 absent; 6, 7 from upper angle.

682. Xanthomis grandis.

Automolis grandis, Druce, Biol. Centr.-Am., Het. i. p. 75, pl. 8, f. 25 (1884); Kirby, Cat. Het. p. 166.

♀. Fulvous-orange; palpi and antennæ black, the latter white at tips; abdomen with black band on 1st segment; underside of thorax and abdomen black. Fore wing with the apex narrowly black and the cilia to above vein 4; the termen and cilia black from vein 3 to tornus and the inner margin from tornus to before middle. Hind wing with the inner area black, gradually expanding to tornus; a terminal black band wide towards apex, narrower between veins 4 and 2.

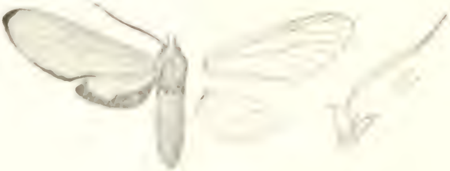

Fig. 141.—*Xanthomis grandis*, ♀. 1/1.

Hab. Costa Rica (*Rogers*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 44 millim.

Genus HISTIÆA.

Type.

Histiæa, Wlk. i. 216 (1854) .... *proserpina*.

Proboscis fully developed; palpi upturned, reaching above vertex of head, the 3rd joint moderate and obtuse; antennæ bipectinate with short branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; build stout. Fore wing broad; vein 3 from near angle of cell; 4, 5 from angle; 6 below upper angle; 7, 8, 9, 10, 11 stalked, or 11 from cell. Hind wing with the cell long; veins 2 and 4 from angle; 3 and 5 absent; 6 from or just below upper angle.

Sect. I. Hind wing of male with vein 6 from just below upper angle; a fringe of long hair on vein 1 of fore wing below.

A. Hind wing of male with the upperside except terminal area clothed with thick fringes of hair.

683. Histiæa paulina.

Histiæa paulina, Wlk. xxxv. 1868 (1866); Kirby, Cat. Het. p. 120.

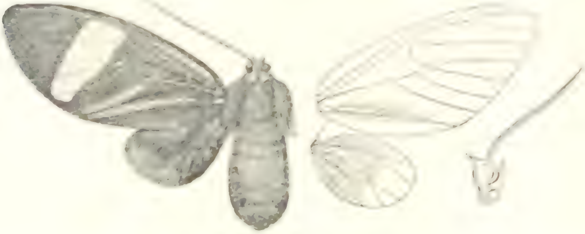

Fig. 142.—*Histiæa paulina*, ♂. 1/1.

♂. Black-brown, vertex of head, tegulæ, metathorax, and sides of thorax with metallic blue spots; abdomen with lateral series of blue spots. Fore wing with blue spots at base and on discocellulars; a crimson streak below basal half of costa; a slight mark in cell; streaks below vein 2 and above vein 1 to near termen, the latter not reaching base; a broad oblique yellow band beyond the cell from vein 7 to just below 3 near termen.

Hab. Brazil, São Paulo, 1 ♂ type. *Exp.* 70 millim.

B. Hind wing of male without fringes of hair on upperside.

684. **Histiæa imaon**, n. sp. (Plate XI. fig. 13.)

♂. Black-brown; back of head, tegulæ, and metathorax with metallic blue spots; abdomen with dorsal and subdorsal metallic blue patches, the terminal half entirely blue. Fore wing with two blue points at base and two on discocellulars; almost obsolete crimson fasciæ below costa and median nervure and above vein 1; an oblique orange band beyond the cell from below costa to vein 3 near termen. Hind wing with crimson subterminal point above vein 2. Underside with the subcostal fascia of fore wing prominent; hind wing with spots above veins 2 and 4 and below 6.

Hab. Amazons, Surimaya, 1 ♂ type. *Exp.* 60 millim.

Sect. II. Hind wing of male with vein 6 from upper angle; no rough hair on hind wing above, or on vein 1 of fore wing below.

A. Abdomen with the first two segments yellow above.	
a. Fore wing with the two lower yellow spots of the maculate band beyond the cell displaced outwards towards termen	*meldolæ.*
b. Fore wing with the four yellow spots beyond the cell forming a regular oblique yellow band	*bellatrix.*
B. Abdomen with three yellow bands on basal segments interrupted dorsally	*cepheus.*
C. Abdomen with yellow bands on 2nd and 3rd segments	*boliviana.*
D. Abdomen without yellow on basal segments.	
a. Fore wing with more or less developed crimson markings.	
*a*¹. Fore wing with oblique orange band beyond cell.	
*a*². Fore wing with two crimson fasciæ in submedian interspace; abdomen blue except at base	*maon.*
*b*². Fore wing with curved crimson fascia in submedian interspace	*amazonica.*
*c*². Fore wing with crimson spots in cell and below base of vein 2; a slight streak below base of median nervure and a fascia above vein 1	*proserpina.*
*b*¹. Fore wing with obscure grey band beyond cell	*glaucozona.*
b. Fore wing without crimson markings	*tina.*

685. **Histiæa meldolæ.**

Histiæa meldolæ, Butl. Journ. Linn. Soc., Zool. xii. p. 362 (1876); Druce, Biol. Centr.-Am., Het. i. p. 42, pl. 6. f. 14; Waterh. Aid, pl. 63; Kirby, Cat. Het. p. 120.

Head, thorax, and abdomen black; frons, vertex of head, tegulæ, metathorax, and sides of thorax with metallic blue spots; patagia with large pale yellow patches; fore coxæ pale yellow; abdomen with the first two segments pale yellow, the others with subdorsal series of blue spots, the first three segments yellow below. Fore wing black; two crimson streaks below costa joining at middle; a yellow wedge-shaped mark in base of cell and spot in end of it; two broad crimson fasciæ in submedian interspace, one below vein 1 and the uppermost narrowing below vein 2, above which is a short crimson streak; two metallic blue spots on discocellulars; a series of four yellow spots beyond the cell, the two lower nearer the termen, the upper often small or absent. Hind wing with a broad crimson fascia below the cell conjoined to four spots beyond it; the inner area yellow.

Hab. PANAMA, Chiriqui (*Champion*), Godman-Salvin Coll.; VENEZUELA; TRINIDAD, type. *Exp.* 54–72 millim.

686. Histiæa bellatrix.

Euchromia bellatrix, Wlk. i. 217 (1854); Butl. Ill. Het. i. p. 21, pl. 8. f. 8; Kirby, Cat. Het. p. 120.

Histiæa colombiæ, Butl. Journ. Linn. Soc., Zool. xii. p. 362 (1876); Kirby, Cat Het. p. 120.

Head, thorax, and abdomen black-brown; frons, vertex of head, and tegulæ with metallic blue spots; patagia and fore coxæ with pale yellow patches; sides of thorax and legs with patches of blue; abdomen with the first two segments pale yellow, followed by a lateral series of blue spots; the first three segments, and sometimes part of the 4th, yellow below. Fore wing with metallic blue spots at base and on the discocellulars; a crimson streak below basal two-thirds of costa; a wedge-shaped yellow spot in base of cell and quadrate spot in end of it; a crimson fascia in submedian interspace arched at base; a crimson streak above medial part of inner margin; an oblique maculate yellow fascia beyond the cell between veins 7 and 3. Hind wing with a broad crimson fascia beyond the cell usually conjoined to a maculate band beyond it; the inner area yellow except at termen.

The typical form has the crimson fascia below cell of fore wing narrow and arched throughout, the fascia above inner margin narrow; the oblique band beyond the cell narrow, on one side of one specimen reduced to the two lower spots.

Ab. 1. *colombiæ*. Fore wing with the postmedial band broad; hind wing with the crimson fascia below the cell not conjoined to the postmedial band, the yellow on inner area reduced.

Ab. 2. Fore wing with the fascia in submedian interspace very broad, contracting below vein 2, the fascia above inner margin and markings of both wings large.

Hab. COLOMBIA, type *colombiæ*, Bogota (*Buckley*, *Vergara*); VENEZUELA, type, Aroa. *Exp.* 60–68 millim.

687. **Histiæa cepheus.**

Sphinx cepheus, Cram. Pap. Exot. iii. pl. 197. E (1780); Kirby, Cat. Het. p. 120.

Black-brown; vertex of head, metathorax, and legs with metallic blue spots; frons and patagia often with yellow spots; fore coxæ often with yellow patches; abdomen with rather narrow yellow bands on first three segments, incomplete above, followed by a lateral series of metallic blue spots; underside with yellow band also on 4th segment. Fore wing with metallic blue spot at base, followed by slight crimson streaks below costa, median nervure, and base of vein 2; two blue spots on discocellulars; an obsolescent greyish spot in end of cell and series of four beyond the cell, the two lower displaced outwards. Hind wing with large crimson patch below the cell, and oblique maculate postmedial band beyond it. Underside of fore wing with distinct crimson markings and pale yellow spots.

Hab. Trinidad (*Broadway*); Venezuela, 4 ♂, ♀. *Exp.* 64–72 millim.

*688. **Histiæa boliviana.** (Plate XI. fig. 10.)

Histiæa boliviana, Druce, P. Z. S. 1890, p. 493; Kirby, Cat. Het. p. 120.

♂. Head, thorax, and abdomen black-brown; frons with yellow patch; vertex of head, tegulæ, and metathorax with metallic blue points; patagia with yellow spots; abdomen with yellow bands on 2nd and 3rd segments, partially interrupted dorsally by blue points, and followed by a ventral yellow band on 4th segment and lateral and sublateral series of blue points; wings brown. Fore wing with blue points at base below cell and at lower angle; short crimson basal streaks below costa and cell; two wedge-shaped yellow spots in end of cell conjoined outwardly; two obsolescent yellowish fasciæ in submedian interspace, conjoined and terminating below middle of vein 2; an oblique postmedial series of yellow spots between veins 3 and 7, the spot above vein 3 small. Hind wing with small crimson spot in cell; a large patch below the cell extending nearly to termen and slightly confluent with a large patch beyond the cell. Underside of fore wing with the streaks in submedian interspace crimson.

Hab. Bolivia (*Buckley*). *Exp.* 68 millim. Type † in Coll. Druce.

*689. **Histiæa maon.** (Plate XI. fig. 11.)

Histiæa maon, Druce, A. M. N. H. (6) xviii. p. 29 (1896).

♀. Black-brown; vertex of head, tegulæ, and metathorax with blue points; abdomen dorsally brilliant metallic blue except at base, and a sublateral series of points. Fore wing with blue points at base and discoidal bar; a crimson streak below costa, obsolescent spot in middle of cell, and two streaks in submedian interspace extending to below middle of vein 2, the upper curved; an oblique postmedial yellow band between veins 3 and 7. Hind wing with subterminal crimson spot between veins 2 and 4. Underside of fore wing with the spot in cell prominent, the fasciæ in submedian interspace obsolete towards base and conjoined at extremity.

Hab. Bolivia (*Garlepp*). *Exp.* 70 millim. Type † in Coll. Druce.

690. Histiæa amazonica.

Histiæa amazonica, Butl. Journ. Linn. Soc., Zool. xii. p. 362 (1876); id. Ill. Het. i. p. 21, pl. 18. f. 1; Kirby, Cat. Het. p. 120.

Histiæa inferioris, Butl. Journ. Linn. Soc., Zool. xii. p. 362; Kirby, Cat. Het. p. 120.

Black-brown; frons, vertex of head, tegulæ, metathorax, and sides of thorax with metallic blue spots; abdomen with two lateral series of blue spots. Fore wing with blue spots at base and on discocellulars; narrow crimson streaks below costa, in submedian interspace, and above middle of inner margin, often obsolescent, and the streak below the cell arched; a yellow spot in end of cell usually present; a broad oblique yellow band beyond the cell from vein 7 to 3 near outer margin. Hind wing with obliquo variable maculate crimson band beyond the cell between upper angle and vein 2 near outer margin.

Ab. *inferioris*: with the spots of the band beyond cell of hind wing reduced and separate.

Hab. Amazons (*Bates*), type (*Wallace*, *Trail*, *Degand*), type *inferioris*. *Exp.* 62–72 millim.

691. Histiæa proserpina.

Euchromia proserpina, Hubn. Zutr. Ex. Schmett. ii. p. 10. ff. 221, 222 (1827); Kirby, Cat. Het. p. 120.

Black-brown; vertex of head, patagia, metathorax, and sides of thorax with metallic blue spots; abdomen with two lateral series of blue spots. Fore wing with blue spots at base and on discocellulars; short crimson streaks at base below costa and median nervure and a streak to two-thirds of wing above vein 1; a spot

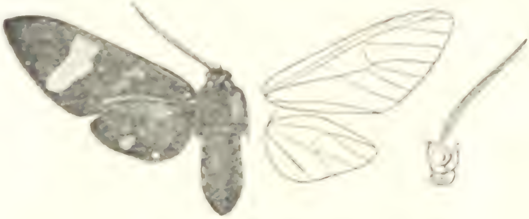

Fig. 143.—*Histiæa proserpina*, ♂. 1/1.

in end of cell and another below base of vein 2, all these markings somewhat obsolescent; an oblique yellow fascia beyond the cell from vein 7 to 3 near outer margin. Hind wing with two obliquely placed crimson spots beyond the cell between veins 6 and 2.

Hab. Amazons (*Wallace*), 1 ♂, 1 ♀. *Exp.* 60 millim.

*692. **Histiæa glaucozona.** (Plate XI. fig. 12.)

Histiæa glaucozona, Druce, A. M. N. H. (7) i. p. 405 (1898).

♂. Brown; back of head and coxæ with blue points; fore legs and hind coxæ with blue spots; abdomen with lateral and sublateral series of blue spots. Fore wing with two blue points at base and on discocellulars; the veins and submedian interspace streaked with darker brown; slight crimson streaks below base of costa and cell and an obsolescent patch in cell; an obscure oblique grey band beyond cell between veins 7 and 3. Hind wing with large reniform crimson patch beyond the cell between veins 2 and 7. Underside of fore wing with the crimson patch in cell more developed; a large yellowish patch below lower angle above and below vein 2 extending almost to tornus, two small whitish spots beyond lower angle and two beyond upper angle; hind wing with whitish spot between veins 2 and 4; a small spot above 4, and another above 5.

Hab. Amazons, 1 ♂, type † in Mus. Oxon. *Exp.* 64 millim.

693. **Histiæa tina.**

Euchromia tina, Wlk. i. 233 (1854); Butl. Ill. Het. i. p. 23, pl. 8. f. 9; Kirby, Cat. Het. p. 123.
Sphenoptera batesi, Feld. Reis. Nov. pl. 102. f. 35 (1874).

♀. Black; frons, vertex of head, tegulæ, metathorax, and legs with patches of metallic blue; abdomen with slight dorsal and broader subdorsal and sublateral maculate metallic blue fasciæ. Fore wing with a blue spot at base of costa and a streak in cell; a very broad orange band from costa beyond middle almost to tornus. Underside with patches of blue in end of cell of both wings and in base of cell of hind wing.

Hab. Brazil, Rio Grande, 1 ♀ type. *Exp.* 46 millim.

Genus **AGYRTIDIA**, nov.

Type, *A. uranophila*.

Proboscis fully developed; palpi with the 2nd joint upturned and reaching vertex of head, the 3rd well developed and somewhat porrect; antennæ bipectinate, with short branches dilated at extremity and ending in a bristle; thorax woolly above; tibiæ with the spurs short; build stout. Fore wing broad; vein 3 from near angle of cell; 4, 5 separate at origin; 6 from below upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the lower part of cell rather short, the upper discocellular oblique; veins 2 and 4 on a moderate stalk; 3 and 5 absent; 6, 7 from upper angle.

694. Agyrtidia uranophila.

Eucyane uranophila, Wlk. xxxv. 1874 (1866); Butl. Ill. Het. i. p. 21, pl. 18. f. 2; Kirby, Cat. Het. p. 120.

♂. Head and thorax black; frons, vertex of head, tegulæ, and legs with patches of blue; fore coxæ white; abdomen black, with dorsal blue fascia; a whitish subdorsal streak with metallic blue fascia below it except at base; the ventral surface white. Fore wing with metallic blue fascia below basal half of costa; an oblique hyaline medial maculate band, from subcostal nervure to vein 1, edged with blue; a blue bar on discocellulars; an oblique hyaline maculate band edged with blue beyond the cell from vein 7 to 3 near outer margin. Hind wing with hyaline patch beyond and below cell edged with blue, and the veins crossing it blue; a blue fascia on vein 1; some white on inner area.

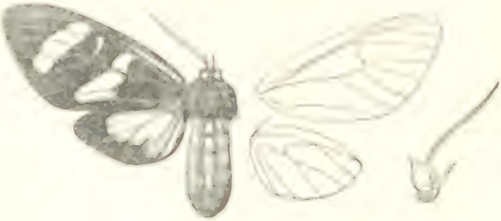

Fig. 144.—*Agyrtidia uranophila*, ♂. $\frac{1}{1}$.

♀ without white on fore coxæ.

Hab. Brazil, São Paulo (*Bates*), 1 ♂ type; Peru (*Degand*), 1 ♀. *Exp.*, ♂ 64, ♀ 70 millim.

Genus MACROCNEME.

	Type.
Macrocneme, Hubn. Verz. p. 124 (1827)	*maja.*
Copæna, Herr.-Schaff. Aussereur. Schmett. i. p. 22 (1854)	*maja.*

Proboscis fully developed; palpi upturned and reaching vertex of head; antennæ with the medial part of shaft dilated, especially in female, bipectinate, the branches dilated at extremity and ending in a bristle, in female minutely serrate or with short branches; tibiæ with the spurs moderate; a fringe of hair on distal part of hind tibiæ and tarsus; abdomen with lateral tubercles on basal segment, male with ventral valve covering basal segments. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; veins 2 and 4 from angle or shortly stalked; 3 from 2 near margin; 5 absent; 6, 7 from upper angle.

Sect. I. Hind tibiæ with fringes of long hair on each side towards extremity; the tarsi strongly fringed above.

- A. Antennæ of female with short branches.
  - *a.* Hind tarsi with the fringe on terminal joints white.
    - *a*¹. Legs striped with metallic blue; fore wing with the metallic blue extending almost to termen... *cyanea.*

b^1. Legs black; fore wing with the metallic blue hardly extending beyond cell........................ *lades.*

b. Hind tarsi with the fringe black.

a^1. Wings uniformly suffused with golden cupreous green .... *cupreipennis.*

b^1. Wings with the metallic suffusion interrupted by a subbasal black band.

a^2. Fore wing with the metallic blue extending nearly to termen.

a^3. Fore wing with the blue on outer half of wing entire and occupying the outer part of cell .... *adonis.*

b^3. Fore wing with the metallic blue on the outer half broken up into streaks, and only a slight streak in upper end of cell .... *cinyras.*

b^2. Fore wing with the metallic blue or green hardly extending beyond cell..................... *chrysitis.*

695. Macrocneme cyanea. (Plate XI. fig. 14.)

Mastigocera cyanea, Butl. Journ. Linn. Soc., Zool. xii. p. 372 (1876); Kirby, Cat. Het. p. 130.

♀. Black shot with brilliant metallic blue; antennæ white at tips; base of palpi, frons, tegulæ, pectus behind, and coxæ with white points; hind legs with the fringes black, the last two joints of tarsi white; abdomen with subdorsal and lateral white spots on 1st segment and lateral and sublateral spots on 2nd segment. Fore wing with the apical area not suffused with blue. Hind wing with white points at base below.

Hab. Brazil, Rio Janeiro, 2 ♀, types. *Exp.* 42 millim.

696. Macrocneme lades.

Sphinx lades, Cram. Pap. Exot. i. pl. 83. E (1776); Kirby, Cat. Het. p. 129.

Glaucopis leucostigma, Perty, Del. Anim. Art. p. 158, pl. 31. f. 11 (1834); Kirby, Cat. Het. p. 128.

Macrocneme ferrea, Butl. Journ. Linn. Soc., Zool. xii. p. 371 (1876); Kirby, Cat. Het. p. 129.

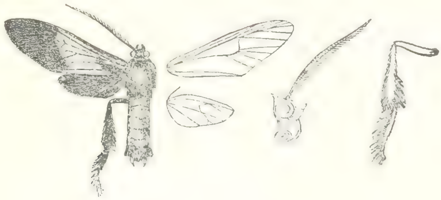

Fig. 145.—*Macrocneme lades,* ♂. $\frac{1}{1}$.

Black; antennæ white at tips; palpi at base white; frons with two white points; shoulders, tegulæ, pectus, coxæ in front, and base of femora behind with white points, the fringe on terminal joints of tarsus white; abdomen suffused with golden green; the 1st segment with paired dorsal and lateral white spots, the 2nd with lateral and sublateral spots, and the two following with ventral spots. Fore wing with white point at base of costa; some metallic blue-green streaks at base, sometimes joined below median nervure and on inner margin to the central band, which is usually broad and composed of conjoined fasciæ but sometimes of short well separated streaks. Hind wing often with a patch of metallic blue on disk.

Ab. 1. *ferrea*. Abdomen suffused with blue; fore wing with only a slight oblique black band below the cell between basal and medial blue areas.—Espiritu Santo, Brazil. 1 ♀ type.

Ab. 2. Hind tarsi with the fringe of scales entirely white.—Peru, Coll. Schaus.

Hab. Mexico, Vera Cruz (*H. H. Smith*, *Schumann*, *Godman*), Tabasco (*H. H. Smith*); Honduras (*Blancaneaux*); Guatemala (*Champion*); Costa Rica (*Rogers*, *Underwood*); Panama, Chiriqui (*Ribbe*, *Champion*), Taboga Isl. (*J. J. Walker*), Godman-Salvin Coll.; Colombia; Venezuela; Surinam; Brazil, Espiritu Santo, Para (*Bates*); Peru. *Exp.* 40–42 millim.

697. Macrocneme cupreipennis. (Plate XI. fig. 15.)

Macrocneme cupreipennis, Wlk. vii. 1632 (1856); Kirby, Cat. Het. p. 129.

♀. Black, uniformly suffused with golden cupreous green; antennæ white at tips; frons with two white points, tegulæ with white dorsal point; base of palpi, fore coxæ, and base of femora behind spotted with white; abdomen with two dorsal white points on 1st segment; two ventral white points on 2nd segment below followed by a medial series. Fore wing with white point at base.

Hab. ignotus. 1 ♀ type. *Exp.* 46 millim.

698. Macrocneme adonis.

Macrocneme adonis, Druce, Biol. Centr.-Am., Het. i. p. 48, pl. 6. f. 16 (1884); Kirby, Cat. Het. p. 129.

Black; antennæ white at tips; palpi at base, frons, tegulæ, shoulders, pectus, and fore coxæ with paired white points; thorax suffused with metallic blue; abdomen suffused with golden green, the 1st segment with paired dorsal and lateral white points, the 2nd segment with lateral and sublateral points, and the next two segments with ventral points. Fore wing with oblique basal patch of metallic green and a streak on medial part of inner margin; the area from middle to near termen suffused with metallic blue. Hind wing with more or less developed patch of metallic blue.

Ab. 1. The specimen, figured from Chiriqui, has no blue on apical area of fore wing, and a black streak from it to discocellulars.

Hab. Mexico, Cordova (*Rümeli*), Jalapa (*Trujillo*), Yucatan (*Gaumer*); Guatemala (*Rodriguez*), Vera Paz (*Champion*); Panama, Chiriqui (*Champion*), type, Godman-Salvin Coll. *Exp.* 40 millim.

*699. Macrocneme cinyras.

Macrocneme cinyras, Schaus, Ent. Am. v. p. 88 (1889); Druce, Biol. Centr.-Am., Het. ii. p. 337, pl. 71. f. 4; Kirby, Cat. Het. p. 129.

♂. Black; antennæ white at tips; frons, tegulæ, patagia, and thorax suffused with metallic green in parts; frons, pectus, and coxæ with white points; abdomen metallic green, the 1st segment with dorsal white points, the 2nd with lateral and sublateral points, and the 3rd and 4th with ventral points. Fore wing with white points at base and a metallic green patch; a blue-green streak in upper end of cell and a postmedial streak on costa; a series of streaks between vein 5 and inner margin, becoming more green and longer towards the margin, on which the streak extends from near base to near tornus. Underside with green streaks on basal half of costal area of both wings.

Hab. Mexico, Jalapa, Coatepec. *Exp.* 42 millim. Type † in Coll. Schaus.

700. Macrocneme chrysitis.

Glaucopis chrysitis, Guér. Icon. R. Anim., Ins. p. 502 (1844); Kirby, Cat. Het. p. 129.
Macrocneme iole, Druce, Biol. Centr.-Am., Het. i. p. 48, pl. 6. f. 17 (1884).

Black; antennæ white at tips; frons, tegulæ, and shoulders with paired white spots; patches of metallic blue or golden green on vertex of head, tegulæ, patagia, thorax, pectus, and legs; fore coxæ with patches of white; white spots on base of femora behind; abdomen bronze-green or metallic blue, with subdorsal and lateral white spots on 1st segment; a lateral series of white points; the 2nd segment with paired ventral spots, followed by a medial series on next four segments. Fore wing with blue or bronze-green marks at base; a broad medial band of conjoined blue or bronze fasciæ. Hind wing usually with blue or bronze patch below end of cell.

Ab. 1. Hind tarsi with a little white on fringe at extremity.—Guatemala and Rio Grande.

Hab. Mexico, Jalapa (*Trujillo*), Misantla (*Godman*), Coatepec (*Brooks*); Guatemala (*Champion*); Nicaragua (*Belt*); Panama, Chiriqui (*Champion*), type *iole*, Godman-Salvin Coll.; Brazil, Rio Grande do Sul. *Exp.* 40–46 millim.

B. Antennæ of female minutely serrate.

a. Fore wing blue-black	*laconia.*
b. Fore wing black-brown, with large apical white patch	*evelina.*

701. Macrocneme laconia.

Callicarus laconia, Druce, Biol. Centr.-Am., Het. i. p. 49, pl. 6. f. 18 (1884); Kirby, Cat. Het. p. 129.

♀. Black; antennæ white at tips; frons and spots on vertex of head, tegulæ, pectus, and coxæ metallic blue; abdomen with more or less well-developed dorsal series of spots and lateral and sublateral series, the first two segments ventrally fringed with blue.

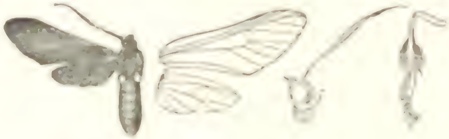

Fig. 146. *Macrocneme laconia*, ♀. 1/1.

Fore wing with some metallic blue marks at base. Hind wing with veins 2 and 4 shortly stalked.

Ab. 1. 1 ♀ from Guerrero (*H. H. Smith*) has the hind tarsi bright orange fringed with black.

Hab. MEXICO, Guerrero (*H. H. Smith*), Yucatan (*Gaumer*), type; GUATEMALA (*Rodriguez*), Godman-Salvin Coll. *Exp.* 36 millim.

702. Macrocneme evelina.

Macrocneme evelina, Druce, Biol. Centr.-Am., Het. i. p. 48, pl. 8. f. 4 (1884). Kirby, Cat. Het. p. 129.

♀. Black; antennæ white at tips; fore coxæ with metallic blue stripe. Fore wing with purple-blue spot at base of inner margin; a large apical white patch with the black area becoming brownish on its edges.

Hab. PANAMA, Chiriqui (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 40 millim.

SECT. II. Extremity of hind tibiæ and the tarsus fringed with long hair above.

- A. Antennæ of female bipectinate, with short branches.
  - *a*. Hind tarsi with the terminal joints fringed with white.
    - a^1. Pectus and ventral surface of abdomen of ♂ white.
      - a^2. Thorax black; fore wing without basal white points: exp. [illegible] millim. ...... *immanis.*
      - b^2. Thorax metallic green; fore wing with basal white points: exp. 38 millim. ...... *thyra.*
    - b^1. Pectus and ventral surface of abdomen black, with white points ...... *thyridia.*
  - *b*. Hind tarsi fringed with black; abdomen with ventral series of white points ...... *maja.*

703. Macrocneme immanis, n. sp. (Plate XII. fig. 1.)

♂. Black; antennæ white at tips; frons with lateral white points; tegulæ with lateral and dorsal white points; pectus, stripes on coxæ and femora, and the fringe of hind tarsi white; abdomen with subdorsal and lateral white points on 1st segment, the other segments suffused with dark green, the ventral surface white on basal half, reduced to bands on terminal. Fore wing suffused with dark metallic green to end of cell. Hind wing with dark green patch in, below, and beyond lower end of cell.

♀. Base of palpi, coxæ, and base of femora with white points; abdomen with white ventral band at base, the other segments with ventral series of points, and the 2nd and 3rd segments with lateral points.

Hab. Bolivia, Chaco, 1 ♂ 1 ♀, type. *Exp.* 52 millim.

704. Macrocneme thyra.

Macrocneme thyra, Möschl. Verh. zool.-bot. Ges. Wien, xxxii. p. 334, pl. 18. f. 24 (1883); Kirby, Cat. Het. p. 129.

♂. Black; antennæ white at tips; palpi white in front and at base; frons with two white spots; tegulæ with white lateral and dorsal points; vertex of head, tegulæ, and patagia suffused with golden green, the vertex of thorax and abdomen with cupreous green; abdomen with paired dorsal and lateral white spots on 1st segment; underside of thorax and abdomen white; legs black, femora streaked with white, extremity of hind tarsi white. Fore wing with two white points at base, the basal half suffused with metallic blue-green interrupted by an oblique patch of the black ground-colour below base of cell. Underside with white on inner area of fore wing and at base of hind wing.

Hab. Surinam, type † ♂ in Coll. Staudinger; Amazons, Para (*Austen*), 1 ♂; Peru, Chanchamayo. *Exp.* 38 millim.

Subsp. 1. Fore wing with the blue-green at base entire, and very little white on inner area of fore wing below, and on base of hind wing.—Trinidad (*Caracciolo*), 1 ♂; Colombia, R. San Juan.

Subsp. 2. Fore wing with the blue-green entire and extending nearly to termen.—Bolivia, Rio Songo, 1 ♂.

705. Macrocneme thyridia, n. sp. (Plate XI. fig. 9.)

♂. Head black, with white points on base of palpi, frons, and vertex; tegulæ and patagia black, with golden-green patches, tegulæ with lateral and dorsal white points; patagia fringed with white; thorax golden green; white points on front and back of pectus and on coxæ; hind tibiæ fringed with white at extremity; abdomen cupreous green, the basal segment black with subdorsal and lateral white points, the 2nd segment with lateral and sublateral points, the others with ventral points; wings black. Fore wing with two white points at base; an oblique golden-green fascia on basal area; some medial streaks on costa and in cell, and a streak on medial part of inner margin. Underside with some white at base of each wing; golden-green suffusion on costa and in cell, and on fore wing below the cell.

♀. Vertex of head without white; patagia not fringed with white.

Hab. Surinam, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 34 millim.

706. Macrocneme maja.

Zygæna maja, Fabr. Mant. Ins. ii. p. 106 (1787); Kirby, Cat. Het. p. 128.

Fig. 147.—*Macrocneme maja*, ♂. ½.

Black; antennæ white at tips; frons with two white points; tegulæ with dorsal white point; palpi at base, pectus, fore coxæ in front, and base of femora behind with white spots; abdomen with two dorsal white points on 1st segment; a lateral series of white points and subdorsal metallic green fasciæ; a ventral series of white points. Fore wing with two white points at base; the outer half suffused with metallic blue-green to near termen, and sometimes with streaks towards base below median nervure and on inner margin. Hind wing with more or less developed patch of blue-green on apical area.

Hab. Amazons, Para (*Bates*). *Exp.* 38 millim.

B. Antennæ of female minutely serrate.
  a. Hind tarsi with the terminal joints and fringe golden yellow.
    a^1. Abdomen of male with the ventral valve edged with orange.
      a^2. Tegulæ with orange spots .... *mestra*.
      b^2. Tegulæ without orange spots .... *laciades*.
    b^1. Abdomen of male with the ventral valve edged with white.
      a^2. Fore wing with medial blue streaks below costa and in cell .... *auripes*.
      b^2. Fore wing with blue spot at base only, the apical area brownish .... *jalapensis*.
    c^1. Abdomen without white on ventral valve; fore wing with large patch of metallic green on discal area ... *chrysotarsia*.
  b. Hind tarsi with the terminal joints fringed with white.
    a^1. Abdomen of male with the ventral valve edged with white, followed by a paired series of white spots.
      a^2. Abdomen suffused with golden green; fore wing with large discal green patch .... *indistincta*.
      b^2. Abdomen with dorsal and lateral green stripes.
        a^3. Fore wing with the costal half nearly all green, and a streak on vein 1 .... *alesa*.
        b^3. Fore wing with green streaks in and above cell only .... *vittata*.
    b^1. Abdomen without ventral white marks.
      a^2. Fore wing suffused with metallic blue-green except inner and terminal areas .... *esmeralda*.
      b^2. Fore wing with metallic blue spot at base only ... *albitarsia*.
  c. Hind tarsi with the terminal joints black.
    a^1. Fore wing with the terminal area white below ...... *hesione*.
    b^1. Fore wing with the terminal area black below.
      a^2. Fore wing with metallic blue streaks in and below cell; abdomen of male with the ventral valve edged with white .... *nigritarsia*.
      b^2. Fore wing uniform blue-black .... *eacus*.

*707. Macrocneme misitra.

Callicarus misitra, Schaus, Ent. Am. v. p. 88 (1889); Druce, Biol. Centr.-Am., Het. ii. p. 338, pl. 71. f. 6; Kirby, Cat. Het. p. 130.

♂. Black; frons blue; tegulæ with orange spots and blue points; pectus and legs marked with blue; hind tarsi wholly orange; abdomen with the ventral valve edged with orange; dorsal and lateral series of blue points; wings with the interspaces rather thinly scaled. Fore wing with blue spot at base.

Hab. Mexico, Paso de San Juan, Vera Cruz. *Exp.* 32 millim. Type † in Coll. Schaus.

*708. Macrocneme laciades. (Plate XII. fig. 2.)

Callicarus laciades, Schaus, Ent. Am. v. p. 88 (1889); Druce, Biol. Centr.-Am., Het. ii. p. 338; Kirby, Cat. Het. p. 130.

♂. Black; antennæ white at tips; frons, tegulæ, shoulders, vertex of thorax, pectus, and coxæ with patches of metallic blue-green; hind tarsi orange except at base; abdomen with dorsal blue point on 1st segment, a lateral series of points, the ventral valve narrowly edged with orange, the anal tuft orange at extremity. Fore wing with blue point at base.

Hab. Mexico, Paso de San Juan, Vera Cruz. *Exp.* 32 millim. Type † in Coll. Schaus.

709. Macrocneme auripes.

Euchromia auripes, Wlk. i. 250 (1854); Butl. Ill. Het. i. p. 25, pl. 8. f. 4; Druce, Biol. Centr.-Am., Het. i. p. 47, pl. 6. f. 15; Kirby, Cat. Het. p. 128.

♂. Blue-black; antennæ white at tips; frons with patch of white or blue scales; vertex of head, tegulæ, thorax, pectus, and legs with patches of blue; base of femora with white spots behind; hind tarsi and fringe orange-yellow except at base; abdomen with lateral blue spots on 1st segment and slight dorsal stripe; the ventral valve edged with white. Fore wing with metallic blue points at base and streaks of metallic blue-green scales below medial part of costa and in cell. Underside with metallic blue streaks on median nervure of fore wing and below costa of hind wing.

♀. Abdomen with sublateral white patches on medial segments.

Hab. Honduras, 1 ♂ type; Guatemala, Vera Paz (*Champion*), 1 ♂ 1 ♀; Panama, Chiriqui (*Champion*), 1 ♀ Godman-Salvin Coll. *Exp.* 40 millim.

*710. Macrocneme jalapensis.

Callicarus jalapensis, Schaus, Ent. Am. v. p. 89 (1889); Druce, Biol. Centr.-Am., Het. ii. p. 338, pl. 71. f. 7; Kirby, Cat. Het. p. 130.

♂. Black; antennæ white at tips; frons, tegulæ, shoulders, and coxæ with brilliant blue points; hind tarsi orange; abdomen with lateral series of blue points, the ventral valve narrowly edged with white. Fore wing with small blue spot at base of inner margin, the black shading to brownish at apex.

Hab. Mexico, Jalapa. *Exp.* 40 millim. Type + in Coll. Schaus.

711. **Macrocneme chrysotarsia**, n. sp. (Plate XII. fig. 22.)

♂. Black; antennæ white at tips; head, thorax, and legs with patches of metallic blue; hind tarsi orange yellow except at base; abdomen suffused with metallic blue and with silvery blue-green dorsal and lateral stripes; the ventral valve with blue lateral patches. Fore wing with large patch of metallic green in and beyond cell, and stripe on vein 1.

Hab. Panama, Taboga Isl. (*J. J. Walker*), 1 ♂ type. *Exp.* 34 millim.

712. **Macrocneme indistincta.**

Macrocneme indistincta, Butl. Journ. Linn. Soc., Zool. xii. p. 371 (1876); Kirby, Cat. Het. p. 129.
Macrocneme splendida, Butl. Journ. Linn. Soc., Zool. xii. p. 371 (1876); Kirby, Cat. Het. p. 129.
Macrocneme cyllarus, Druce, A. M. N. H. (6) xviii. p. 29 (1896); Biol. Centr.-Am., Het. ii. p. 335, pl. 71. f. 2.

♂. Palpi in front white; patagia with white streaks, fore coxæ with white patches; ventral valve edged with white; cilia white towards tornus of each wing.

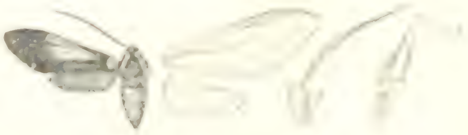

Fig. 148.—*Macrocneme indistincta*, ♀. ½.

♀. Black; antennæ white at tips; frons, back of head, tegulæ, shoulders, and vertex of thorax with blue and white spots; vertex of head, pectus, and legs with patches of metallic green; base of femora with white spots behind; hind tarsi with the fringe on terminal segments white; abdomen suffused with golden green; a sublateral series of white spots on last five segments. Fore wing with white point and metallic blue-green marks at base; green streaks in, above, below, and beyond cell and on vein 1.

Ab. 1. Rio Grande do Sul. 1 ♂ with the green suffusion on fore wing more extensive, especially on inner area; cilia not white.

Hab. Panama, Chiriqui (*Champion*), type + *cyllarus* in Coll. Staudinger: Colombia, Santa Marta (*Bouchard*), 2 ♂, type *splendida*; Amazons, Para (*Bates*), 1 ♀ type. *Exp.* 40 millim.

This may be a brightly marked form of *vittata*.

713. **Macrocneme alesa.** (Plate XII. fig. 3.)

Macrocneme alesa, Druce, P. Z. S. 1890, p. 493; Kirby, Cat. Het. p. 129.

Black; frons, tegulæ, metathorax, pectus, and coxæ with blue and white spots; tibiæ striped with blue at base; hind tarsi white at extremity; abdomen with dorsal and lateral green streaks, the 1st segment ventrally green, followed by paired series of white spots. Fore wing with white points at base, the costal half green to near termen and a streak on vein 1 to beyond middle.

Hab. BOLIVIA, Songo, 1 ♀; PERU, type † in Coll. Druce. *Exp.* 32 millim.

714. **Macrocneme vittata.** (Plate XII. fig. 23.)

Euchromia vittata, Wlk. i. 249 (1854); Kirby, Cat. Het. p. 129.

♂. Black; antennæ slightly white towards tips; palpi white in front; frons, tegulæ, and shoulders with blue and white spots; patagia slightly streaked with blue and white; pectus behind, fore coxæ, and legs with patches of blue and white; femora with white spots behind at base; hind tarsi with the fringe white on terminal segments; abdomen with dorsal and lateral metallic blue stripes; the valve edged with white; paired ventral white spots on next four segments. Fore wing with white point and some blue marks at base; slight blue-green streaks in, above, and below cell and on base of vein 1; cilia sometimes white at tips towards tornus of each wing.

♀ without white on palpi.

Hab. AMAZONS, Para (*Bates*), 1 ♂ 1 ♀, types. *Exp.* 36 millim.

715. **Macrocneme esmeralda.** (Plate XII. fig. 4.)

Macrocneme esmeralda, Butl. Journ. Linn. Soc., Zool. xii. p. 371 (1876); Kirby, Cat. Het. p. 129.

♀. Black; frons, vertex of head, tegulæ, shoulders, pectus, and legs with patches of metallic blue scales; hind tarsi with the fringe on terminal joints white; abdomen with metallic golden-green dorsal, lateral, and sublateral stripes. Fore wing suffused with metallic blue except the veins, margins, a streak in cell, and the inner area, on which there is a blue streak on vein 1.

Hab. PANAMA, Taboga I. (*Mathew, J. J. Walker*), 1 ♀; AMAZONS, Ega (*Bates*), 1 ♀ type. *Exp.* 34 millim.

716. **Macrocneme albitarsia,** n. sp. (Plate XII. fig. 6.)

♀. Fuscous black; antennæ white at tips; some metallic blue on frons, tegulæ, patagia, metathorax, pectus, and coxæ; hind tarsi with the four terminal joints white; abdomen with metallic blue lateral patches on 1st segment and series of points on the others. Fore wing with some metallic blue marks at base.

Hab. AMAZONS, Tabatinga (*Trail*), 1 ♀ type. *Exp.* 30 millim.

*717. Macrocneme hesione.

Macrocneme hesione, Druce, A. M. N. H. (6) ii. p. 239 (1888); Biol. Centr.-Am., Het. ii. p. 357, pl. 71. f. 3; Kirby, Cat. Het. p. 129.

♀. Black; anal tuft and ventral surface of abdomen metallic green. Fore wing purplish black; terminal area greyish, with the veins black; a white point at base. Hind wing black, the costal area purplish. Underside of fore wing with the terminal area broadly white.

Hab. Panama, Chiriqui (*Trotsch*). *Exp.* 34 millim. Type ♀ in Coll. Staudinger.

718. Macrocneme nigritarsia, n. sp. (Plate XII. fig. 21.)

Macrocneme vittata, Druce, Biol. Centr.-Am., Het. i. p. 48 (nec Wlk.).

♂. Black; antennæ white at tips; frons, vertex of head, tegulæ, shoulders, and meso- and metathorax with blue and white spots; pectus and legs with patches of metallic blue; fore coxæ and base of femora behind with white spots; abdomen with dorsal and lateral blue stripes; the ventral valve edged with white. Fore wing with a white point and some blue marks at base; blue streaks in, above, and below cell.

♀. Abdomen with paired sublateral white spots on two medial segments.

Ab. 1. A female from Trinidad with white sublateral spots on the four medial segments of abdomen.

Hab. Mexico, Tabasco (*H. H. Smith*); Guatemala (*Champion*), Godman-Salvin Coll., 4 ♂, 1 ♀ type; Trinidad, 1 ♀. *Exp.* 36 millim.

719. Macrocneme eacus.

Sphinx eacus, Stoll, Pap. Exot. iv. pl. 357. B (1781); Kirby, Cat. Het. p. 126.
Pseudomya eacus, Hübn. Verz. p. 124 (1827).
Mastigocera pusilla, Butl. Journ. Linn. Soc., Zool. xii. p. 372 (1876); Kirby, Cat. Het. p. 130.

♀. Blue-black; some bluish white at base of palpi, behind the eyes, on tegulæ and shoulders; pectus and sides of abdomen with some metallic blue scales. Fore wing with a white point at base; the medial area suffused with bright blue.

Hab. Surinam; Amazons, Para (*Bates*), 2 ♀, type *pusilla*. *Exp.* 32 millim.

Genus MYDROPASTEA, nov.

Type, *M. albicincta*.

Proboscis fully developed; palpi upturned to just above vertex of head; antennæ of male bipectinate, with rather long branches; tibiæ with the spurs moderate; thorax woolly; abdomen slender and dorsally clothed with rough hair at base. Fore wing long and narrow, the apex produced; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 2 and 4 stalked, 3 from 2 near margin; 5 obsolescent from angle of discocellulars; 6, 7 from upper angle.

Sect. I. Antennæ fringed with rough scales above.

720. Mydropastea cephalena.

Eupyra cephalena, Druce, P. Z. S. 1883, p. 372, pl. 39. f. 2; Kirby, Cat. Het. p. 124.

♀. Head and thorax black; frons, tegulæ, and shoulders with white points; pectus and coxæ with white patches; abdomen metallic blue-green, with cupreous subdorsal patches; a pure white dorsal band on 1st segment and lateral fasciæ; wings black-brown. Fore wing with the basal half of costal area suffused with golden green and the inner area below the cell to near termen; a white point at base; a wedge-shaped hyaline patch below base of vein 2; a small spot in upper end of cell; two spots between veins 3 and 5, and a spot above vein 6 with a point below it. Hind wing with elongate hyaline patch below the cell and a large spot beyond the cell.

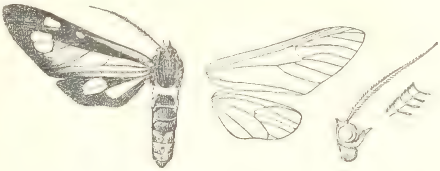

Fig. 149.—*Mydropastea cephalena*, ♂. $\frac{1}{1}$.

Hab. Colombia, 1 ♂; Ecuador, Sarayacu (*Buckley*). *Exp.* 44 millim. Type † in Coll. Druce.

Sect. II. Antennæ not fringed with rough scales above.

- A. Fore wing with hyaline spots.
  - *a.* Abdomen with lateral and sublateral white spots .... *sylva.*
  - *b.* Abdomen with sublateral white fasciæ; tibiæ streaked with white .... *salmoni.*
- B. Fore wing without hyaline spots.
  - *a.* Fore wing suffused with metallic blue; tegulæ and base of abdomen pure white.. *albicincta.*
  - *b.* Fore wing suffused with golden green.
    - a^1. Abdomen with dorsal, lateral, and sublateral series of bluish-white points .... *bacchans.*
    - b^1. Abdomen with subdorsal series of yellowish patches and sublateral series of spots .... *aurata.*

*721. Mydropastea sylva. (Plate XII. fig. 11.)

Eupyra sylva, Schaus, J. N. Y. Ent. Soc. iv. p. 131 (1896).

♂. Fuscous black: tegulæ with white spots; meso- and metathorax with green patches; coxæ white; abdomen with some golden-green suffusion on dorsum; the 1st segment with pure white dorsal and lateral patches, followed by bluish-white lateral and sublateral spots on the other segments; a pair of dorsal white points on terminal segment; the ventral surface white at base, then yellowish. Fore wing suffused with cupreous and golden-green scales to beyond middle; an elliptical hyaline spot below middle of cell, a small spot in upper end of cell and point beyond the angle; two spots between veins 3 and 5. Hind wing with a few metallic green scales; the inner area white; a large hyaline patch below the cell and two conjoined spots beyond it.

Hab. Brazil, Rio Janeiro. *Exp.* 40 millim. Type † in Coll. Schaus.

*722. Mydropastea salmoni. (Plate XII. fig. 13.)

Eupyra salmoni, Druce, P. Z. S. 1883, p. 372; Kirby, Cat. Het. p. 124.

♀. Head and thorax black; tegulæ, shoulders, and metathorax with white spots; pectus and coxæ with white patches; femora and tibiæ streaked with white; abdomen golden green, with dorsal black streak, the 2nd segment with large semicircular subdorsal white patches, the ventral surface black with broad white sublateral fasciæ not reaching extremity. Fore wing black-brown, with the interspaces suffused with golden green except on terminal area; small round hyaline spots in end of cell, below base of vein 2, and above veins 3 and 6. Hind wing black-brown, with slight patches of golden green on disk; elongate hyaline spots below the cell and on inner area, and a rounded spot beyond cell with its outer edge indented.

Hab. Colombia, Antioquia (*Salmon*). *Exp.* 56 millim. Type † in Coll. Druce.

*723. Mydropastea albicincta.

Eupyra albicincta, Schaus, J. N. Y. Ent. Soc. iv. p. 131 (1896).

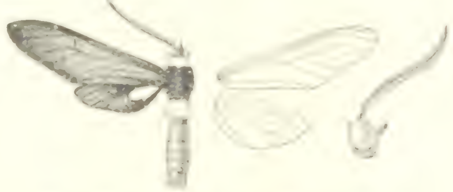

Fig. 150.—*Mydropastea albicincta*, ♂. 1/1.

♂. Head and thorax black; antennæ with the shaft blue; tegulæ, coxæ, and patches on hind femora white; tibiæ streaked with blue; abdomen metallic blue, the first two segments and the ventral surface white to near extremity; anal tuft black; wings suffused with silvery blue scales. Hind wing with hyaline patch below the cell.

Hab. Ecuador, Chimbo. *Exp.* 46 millim. Type † in Coll. Schaus.

*724. Mydropastea bacchans.

Eupyra bacchans, Schaus, P. Z. S. 1892, p. 274; & Am. Lep. pl. 1. f. 5.

♂. Head, thorax, and abdomen black; antennæ white at tips; basal joints of antennæ, back of head, tegulæ, shoulders, and metathorax with white points; legs streaked with blue; tarsi white towards extremity; abdomen with dorsal, lateral, and sublateral series of white and blue points, except towards base. Fore wing black suffused with golden green except the terminal area; a white point at base. Hind wing black, with small green patch beyond lower angle of cell.

Hab. Peru. *Exp.* 46 millim. Type † in Coll. Schaus.

*725. Mydropastea aurata.

Eupyra aurata, Schaus, P. Z. S. 1892, p. 273; & Am. Lep. pl. 1. f. 8.

♀. Head, thorax, and abdomen black; frons, back of head, tegulæ, and shoulders with white points; metathorax with pale golden patch; coxæ and hind tibiæ with white patches; abdomen with whitish subdorsal spots on first two segments, the others with yellow patches; a sublateral series of yellowish-white spots, the ventral surface yellow; wings suffused with golden yellow.

Hab. Peru. *Exp.* 46 millim. Type † in Coll. Schaus.

Genus CHRYSOCALE.

Type.
Chrysocale, Wlk. i. 208 (1854) .... *ignita.*

Proboscis well developed; palpi upturned, reaching just above vertex of head, the 2nd joint hairy; antennæ of male with long branches, of female short, dilated at extremity and ending in a bristle, the shaft somewhat dilated beyond middle; head and thorax clothed with long hair; tibiæ with the spurs moderate; abdomen clothed with hair at base and with lateral tufts towards extremity. Fore wing with vein 3 from near angle of cell; 4, 5 separate at origin; 5 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the lower part of cell moderate; vein 3 from 2 near margin; 5 absent; 6, 7 from upper angle.

Sect. I. Hind wing with veins 2 and 4 strongly stalked.

A. Fore and hind wings with hyaline spots.
    a. Tegulæ and patagia with white spots; fore wing with hyaline spot in middle of cell .... *principalis.*
    b. Tegulæ and patagia without spots; fore wing without hyaline spot in middle of cell .... *regalis.*
B. Fore and hind wings without hyaline spots .... *plebeia.*

726. Chrysocale principalis.

Eupyra principalis, Wlk. xxxi. 97 (1864); Druce, Biol. Centr.-Am., Het. i. p. 43, pl. 70. f. 27; Kirby, Cat. Het. p. 124.

Head and thorax black; base of palpi, frons, vertex of head, tegulæ, patagia, sides of thorax, and coxæ with paired white spots; some metallic green and cupreous on vertex of thorax; abdomen black, with white dorsal and subdorsal spots on 1st segment and a lateral series; dorsal metallic green bands becoming cupreous towards extremity; a ventral series of white patches; wings black.

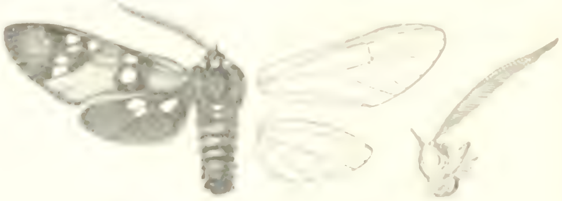

Fig. 151.—*Chrysocale principalis*, ♂. ½.

Fore wing with two white spots at base; a large peacock-green patch on basal area; a hyaline white spot in cell and another below it; a cupreous green patch from end of cell to tornus, with a streak from it on inner margin towards base; a hyaline spot in upper angle of cell and four spots in the interspaces beyond the cell; an apical cupreous green patch formed by streaks between the veins. Hind wing shot with blue, and with a metallic green patch on middle of outer area; a wedge-shaped hyaline spot below the cell and a double spot beyond it.

Hab. Mexico, Oaxaca, type, Amecameca (*Godman*), Jalisco (*Schumann, Richardson*), Guerrero (*Smith*); Guatemala (*Rodriguez*). Godman-Salvin Coll. *Exp.* 50 millim.

*727. Chrysocale regalis.

Glaucopis regalis, Boisd. Spéc. Gén. Lép. i. pl. 16. f. 3 (1836); Herr.-Schäff. Aussereur. Schmett. f. 571; Kirby, Cat. Het. p. 124.

♂. Metallic golden green; head, thorax, and abdomen with the long hair black; frons and base of coxæ with white points; fore coxæ with white patches. Fore wing with white point at base; some cupreous suffusion below the cell; a triangular black patch with hyaline point on it; a point in upper end of cell and a blackish patch beyond the cell, with hyaline points above veins 3, 4, and 6. Hind wing with small hyaline spot on black ground below the cell and two points beyond the cell.

Hab. Ecuador, Sarayacu (*Buckley*), in Coll. Druce. *Exp.* 42 millim.

728. **Chrysocale plebeia.**

Eupyra plebeia, Herr.-Schäff. Aussereur. Schmett. f. 56 (1853); Butl. Ill. Het. i. p. 24, pl. 10. f. 5; Kirby, Cat. Het. p. 124.
Euchromia opulenta, Wlk. i. 210 (1854).

Head, thorax, and abdomen black, suffused with metallic cupreous green. Fore wing metallic green shot with cupreous; a diffused elongate black spot in middle of cell with line from its inner side to inner margin; costa and termen blackish. Hind wing black shot with blue. Underside metallic cupreous green, with diffused black streaks in middle of cell of fore wing and end of cell of hind wing.

Hab. Venezuela, type *opulenta*. *Exp.* 56 millim.

Sect. II. Hind wing with veins 2 and 4 from cell.

A. Fore wing with hyaline spots beyond end of cell.	
a. Hind wing with hyaline spots	*gigantea*.
b. Hind wing without hyaline spots	*splendens*.
B. Fore wing without hyaline spots beyond the cell.	
a. Fore wing with hyaline spot in end of cell	*ignita*.
b. Fore wing without hyaline spots	*ferens*.

729. **Chrysocale gigantea.** (Plate XII. fig. 16.)

Eupyra gigantea, Druce, P. Z. S. 1890, p. 493; Kirby, Cat. Het. p. 124.

♀. Head and thorax black-brown; palpi with white point at base; fore coxæ with white patch; abdomen suffused with golden green, a slight dorsal white patch on 1st segment, sublateral whitish points on three medial segments; wings black-brown. Fore wing with the basal half suffused with golden green, almost joined on inner area by a broad diffused subterminal band; a wedge-shaped hyaline spot in middle of cell and rounded spot below the middle; a small round spot in upper angle of cell, and two spots beyond the cell above and below vein 6; a larger spot above vein 3 and slight streak above 4. Hind wing with elongate hyaline spot below the cell, and oblique series of three spots beyond the cell between veins 2 and 6; the terminal area irregularly suffused with blue-green.

Hab. Colombia (*Wheeler*), 1 ♀. *Exp.* 64 millim. Type † in Coll. Druce.

730. **Chrysocale splendens.**

Eupyra splendens, Dognin, Le Nat. (2) ii. p. 152 (1888); id. Lép. Loja, pl. iv. f. 1; Kirby, Cat. Het. p. 124.

♂. Head, thorax, and abdomen blue-black; head, vertex of thorax, and legs suffused with bright metallic green; frons and fore coxæ white; abdomen with three dorsal metallic green spots on medial segments, the last three segments and the ventral surface metallic green, two lateral white spots on medial segments. Fore wing metallic green shot with cupreous; a somewhat triangular black patch from costa beyond middle to vein 2, with a hyaline spot in cell on its inner edge, a spot in upper end of cell, one between base of veins 3 and 4, and a small spot above vein 6; the terminal area black. Hind wing black, with a subterminal metallic green band widest towards costa but not reaching it.

Hab. Ecuador, Loja, 1 ♂. *Exp.* 50 millim.

731. **Chrysocale ignita.**

Eupyra ignita, Herr.-Schäff. Aussereur. Schmett. f. 55 (1853); Butl. Ill. Het. i. p. 23, pl. 10. f. 8; Kirby, Cat. Het. p. 124.

Head, thorax, and abdomen blue-black; frons white; tegulæ, patagia, and vertex of thorax suffused with cupreous; fore coxæ with white spots; abdomen with two dorsal bluish-white spots at base, slight lateral spots, and a ventral spot towards extremity; wings black shot with blue. Fore wing with large green and cupreous patch on basal area, and a patch below and beyond end of cell from middle up to vein 7; a small wedge-shaped hyaline spot at middle of cell and a wedge-shaped patch in upper angle.

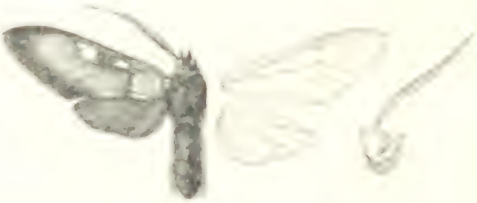

Fig. 152. *Chrysocale ignita*, ♂. ½.

Hab. Colombia, Bogota, 4 ♂ 1 ♀. *Exp.* 52 millim.

732. **Chrysocale ferens.** (Plate XII. fig. 21.)

Eupyra ferens, Schaus, J. N. Y. Ent. Soc. iv. p. 131 (1896).

Head, thorax, and abdomen black; palpi at base, frons, tegulæ, and shoulders with white points; abdomen tinged with greenish; dorsal, lateral, and ventral series of small bluish-white spots, the 2nd and 3rd segments with small ochreous subdorsal scaleless spots; wings suffused with metallic green.

Hab. Bolivia, Chaco, 1 ♂; Peru, type † in Coll. Schaus. *Exp.* 52 millim.

Genus **CALONOTOS.**

	Type.
Calonotos, Hubn. Verz. p. 123 (1827)	*phlegmon.*
Sphenoptera, Feld. Reise Nov., Lep. iv. pl. 102. f. 34 (1874), *nec* Sol. Col. 1833	*triangulifera.*

Proboscis well developed; palpi upturned to above vertex of head; antennæ bipectinate, usually with short branches dilated distally and ending in a bristle; tibiæ with the spurs short. Fore wing with vein 3 from angle of cell; 4, 5 approximated for some distance; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 2 and 4 rather shortly stalked or from cell 3 from 2 near margin; 5 absent; 6, 7 from upper angle.

SECT. I. Both wings with the outer margin slightly excised at middle and broadened at tornus; the submedian interspace clothed with rough scales below; fore wing with ridge of large scales running through submedian interspace.

733. Calonotos metallicus.

Calonotos metallicus, Druce, Biol. Centr.-Am., Het. i. p. 45, pl. 8. f. 5 (1886); Kirby, Cat. Het. p. 126.

♂. Blue-black; paired white spots on frons, middle of tegulæ, shoulders, sides of thorax, coxæ, and femoro-tibial joints; cupreous spots on meso- and metathorax; abdomen with broad dorsal and lateral cupreous stripes, narrow sublateral lines and a white ventral fascia; lateral white tufts at base of abdomen. Fore wing with white spots at base of costa; a slight golden streak below base of median nervure followed by a small white spot; a large round white spot beyond the cell. Hind wing with small white spot beyond the cell.

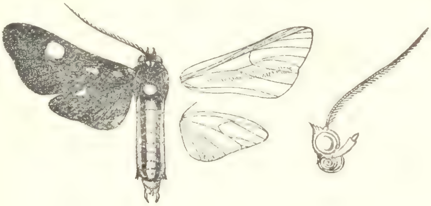

Fig. 153.—*Calonotos metallicus*, ♂. $\frac{1}{1}$.

Hab. PANAMA, Bugaba (*Champion*), 3 ♂, type, Godman-Salvin Coll. *Exp.* 40 millim.

SECT. II. Both wings with the outer margin evenly curved.

A. Fore wing of male with rough scales in submedian interspace on underside; hind wing with veins 2 and 4 stalked.

a. Abdomen with cupreous stripes	*tiburtus*.
b. Abdomen with golden-green stripes.	
a^1. Wings with hyaline spots.	
a^2. Hind wing with hyaline patch below base of cell	*phlegmon*.
b^2. Hind wing without hyaline patch below cell.	
a^3. Tegulæ and basal segment of abdomen with white spots	*chalcipleura*.
b^3. Tegulæ and basal segment of abdomen without white spots	*tripunctata*.
b^1. Wings without hyaline spots	*helymus*.

734. Calonotos tiburtus.

Sphinx tiburtus, Cram. Pap. Exot. iii. pl. 237. C (1780); Druce, Biol. Centr.-Am., Het. i. p. 44; Kirby, Cat. Het. p. 126.

♂. Blue-black; frons, base of palpi, tegulæ, shoulders, sides of thorax, coxæ, and end of femora spotted with white; meso- and metathorax with coppery patches; abdomen black, the 1st segment with white subdorsal and lateral spots; broad dorsal and subdorsal and narrow sublateral cupreous fasciæ and a white ventral fascia. Fore wing with white spot at base of costa and cupreous spot below the base of median nervure; a hyaline white spot below middle of cell and a spot beyond the cell. Hind wing with hyaline white spot beyond the cell.

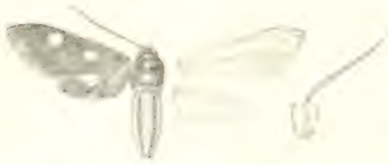

Fig. 154.—*Calonotos tiburtus*, ♂. ½.

♀. Fore wing with a hyaline white spot between veins 2 and 3.

Hab. Costa Rica (*Underwood*); Panama (*Champion*), Godman-Salvin Coll.; Guiana; Surinam. *Exp.* 38 millim.

735. Calonotos phlegmon.

Sphinx phlegmon, Cram. Pap. Exot. i. pl. 35. H (1775); Kirby, Cat. Het. p. 126.

♀. Blue-black; white spots on base of palpi, frons, tegulæ, coxæ, and end of femora; vertex of thorax with two golden-green spots; legs streaked with green; abdomen with paired dorsal and lateral white spots on 1st segment; dorsal, subdorsal, and sublateral golden green fasciæ; a ventral series of white patches. Fore wing with white spot at base of costa; a slight golden green streak below base of costa and a more pronounced one below median nervure; an elongate hyaline white spot below middle of cell; another below base of vein 6 and two between veins 3 and 5. Hind wing with hyaline white spot below the cell and another beyond it.

Hab. Amazons, Para, 1 ♀ (*Bates*). *Exp.* 52 millim.

736. Calonotos chalcipleura, n. sp. (Plate XII. fig. 8.)

♂. Blue-black; antennæ white at tips; frons, tegulæ, sides of thorax, coxæ, and ends of femora with white spots; vertex of thorax with golden green spots; abdomen with a pair of white dorsal spots on 1st segment; broad dorsal and lateral golden green stripes and a ventral series of white spots. Fore wing with golden green streak below costa and short broad streak below base of median nervure; a white spot below middle of cell; a spot beyond upper angle and a spot between veins 3 and 4. Hind wing with a double spot beyond the cell.

Antennæ with the branches very long.

Hab. Venezuela, Aroa, 1 ♂ type. *Exp.* 46 millim.

737. Calonotos tripunctata. (Plate XII. fig. 7.)

Calonotos tripunctata, Druce, A. M. N. H. (7) i. p. 401 (1898).

♂. Black-brown; frons with lateral white points; antennæ white at tips; hind coxæ with white spots; abdomen with broad dorsal and subdorsal silvery green stripes except on 1st and terminal segments, fine sublateral stripes, and white ventral stripe. Fore wing with silvery green stripe on subcostal nervure on antemedial area; an elliptical white spot at base of vein 2; a round spot beyond discocellulars, and traces of small spot above vein 2. Hind wing with elliptical white spot beyond the cell; underside with metallic green fasciæ on basal half of costa and in cell.

Antennæ with the branches short.

Hab. St. Vincent; Trinidad, type in Coll. Druce; Amazon, 1 ♂. *Exp.* 42 millim.

738. Calonotos helymus.

Sphinx helymus, Cram. Pap. Exot. i. pl. 2. D, E (1775); Kirby, Cat. Het. p. 126.

Glaucopis aterrima, Sepp, Surin. Vlind. p. 17, pl. 97 (1848); Kirby, Cat. Het. p. 126.

Black-brown; abdomen with broad golden green dorsal and lateral stripes, a slender sublateral stripe, and slight ventral white stripe. Fore wing usually with slight golden green streak below base of costa. Hind wing with golden green streak on basal costal area on underside.

Hab. Surinam, 4 ♂, 1 ♀, Zeller Coll. *Exp.* 46 millim.

Larva. Head greenish, with the edges of plates, jaws, and eyes black; thoracic segments yellow, with subdorsal and lateral blue warts, those on 2nd and 3rd somites with tufts of long black hair tipped with yellow; the first seven abdominal somites greenish, with two subdorsal and a lateral blue wart; the last three somites yellowish, with similar warts; the 8th abdominal somite with dorsal tuft of long black hair. Food-plant, Coffee.

B. Fore wing of male without rough scales below; hind wing with veins 2 and 4 from cell or shortly stalked.
  a. Abdomen without series of golden spots .... *aurata.*
  b. Abdomen with dorsal, lateral, and sublateral series of large golden spots .... *chryseis.*

739. Calonotos aurata.

Euchromia aurata, Wlk. i. 250 (1854); Kirby, Cat. Het. p. 126.

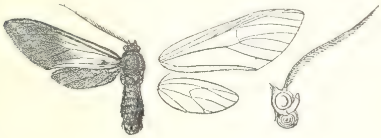

Fig. 155.—*Calonotos aurata*, ♂. $\frac{1}{1}$.

♂. Black-brown; antennæ white at tips; base of palpi, frons, tegulæ, shoulders, and pectus with white points; abdomen with paired dorsal and lateral white points on 1st segment and lateral points on

2nd, the basal segments ventrally white; some golden green on vertex of head and legs; base of femora with white spots behind. Fore wing with the basal half suffused with golden green. Underside with some white at base of both wings, which have the basal half suffused with golden green.

Hab. Venezuela, 1 ♂ type. *Exp.* 40 millim.

740. Calonotos chryseis. (Plate XII. fig. 28.)

Calonotos chryseis, Druce, A. M. N. H. (7) i. p. 401 (1898).

♀. Head, thorax, and abdomen black; base of palpi, frons, and vertex of head with paired white spots; white spots at middle of tegulæ, on shoulders, pectus, and coxæ; tegulæ, patagia, meso- and metathorax with golden spots; abdomen with dorsal and lateral white spots on 1st segment and lateral spots on 2nd, the other segments with dorsal, lateral, and sublateral series of large golden spots; a ventral white fascia. Fore wing golden green, the veins, margins, and cilia black-brown. Hind wing black-brown irrorated with golden green.

♂. Fore wing with round hyaline spots below middle of cell, in upper angle, and above base of vein 3; a point above vein 6. Hind wing with triangular hyaline patch below the cell and bifid spot beyond the cell.

Hab. Colombia, Antioquia, 1 ♂; Bolivia, 1 ♀ type † in Mus. Oxon., Bueyes (*Garlepp*), 1 ♀. *Exp.* 52 millim.

Genus **POLIOPASTEA**, nov.

Type, *P. plumbea*.

Proboscis well developed; palpi porrect, reaching well beyond the frons; antennæ of male bipectinate, with moderate branches ending in a bristle; tibiæ with the spurs moderate; abdomen of male with ventral valve covering basal segments. Fore wing with veins 3, 4, 5 from close to angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 2 and 4 from angle of cell; 3 from 2 near termen; 5 absent; 6, 7 from upper angle.

Sect. I. Hind legs of male with the tibiæ dilated with a groove containing a tuft of long hair, the tibiæ without spurs and fringed with thick scales above and the tarsal joints on both sides.

*741. Poliopastea pava.

Thysanoprymna pava, Dognin, Ann. Soc. Ent. Belge, xxxvii. p. 368 (1893).

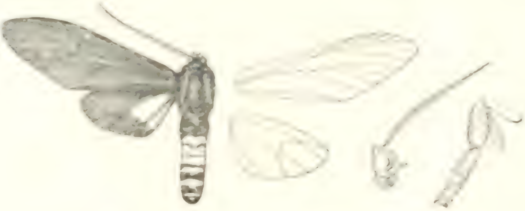

Fig. 156.—*Poliopastea pava*, ♂. $\frac{1}{1}$.

♂. Head and thorax blue-black; 1st joint of palpi, frons, and tegulæ with paired bluish-white points; fore coxæ with bluish-white patches; hind tibiæ with the tufts ochreous; abdomen with bluish-white dorsal segmental points, all except 1st segment with dorsal bands of naked ochreous membrane; a lateral series of bluish-white points. Fore wing black suffused with deep green. Hind wing blue-black, with wedge-shaped hyaline patch below the cell, bidentate at extremity.

Hab. Venezuela, Merida. *Exp.* 54 millim. Type † in Coll. Dognin.

Sect. II. Hind legs of male normal.

A. Wings greenish, with the veins blue	*viridis.*
B. Wings uniform dark leaden grey.	
a. Abdomen with metallic green on ventral valve and white spot behind it; cilia white at tips	*plumbea.*
b. Abdomen concolorous below; antennæ white at tips	*obscura.*

*742. Poliopastea viridis. (Plate XII. fig. 27.)

Chloropsinus viridis, Druce, P. Z. S. 1883, p. 380; Kirby, Cat. Het. p. 156.

♂. Head and thorax black; 2nd joint of palpi, coxæ, and 1st joint of tarsi with white points; abdomen dark blue-grey, with ventral series of white points; wings grey suffused with iridescent greenish, the veins with dark blue. Fore wing with white point at base of costa.

Hab. Ecuador, Chiguinda (*Buckley*). *Exp.* 44 millim. Type † in Coll. Druce.

743. Poliopastea plumbea, n. sp. (Plate XII. fig. 26.)

♂. Dark leaden grey; frons, vertex of head, tegulæ, patagia, and legs with patches of metallic blue; abdomen with dorsal and lateral series of metallic blue spots; the ventral valve blue edged with white, and with white patch behind it. Fore wing with blue spot at base; the cilia white towards tornus. Hind wing with the cilia white.

Hab. Lr. Amazons, Parantins (*Austen*), 1 ♂ type. *Exp.* 26 millim.

744. Poliopastea obscura.

Tipulodes obscura, Wallengr. Wien. Ent. Mon. iv. p. 40 (1860); Kirby, Cat. Het. p. 129.
Chloropsinus nox, Druce, A. M. N. H. (7) i. p. 208 (1898).

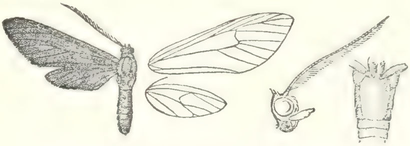

Fig. 157.—*Poliopastea obscura*, ♂. $\frac{1}{1}$.

♂. Dark leaden grey; antennæ white at tips; tegulæ, shoulders, and legs with patches of metallic blue scales; abdomen with lateral series of small blue spots. Fore wing with blue point at base.

Hab. St. Lucia; Ecuador, Guayaquil (*Dolby Tyler*), 1 ♂. *Exp.* 34 millim. Type† in Mus. Stockholm; type† *aox* in Coll. Druce.

Genus DINIA.

	Type.
Dinia, Wlk. i. 189 (1854)	*æagrus.*
Lasioprocta, Wallengr. Öfv. Vet.-Akad. Förhandl. xv. p. 135 (1858)	

Proboscis well developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches, the shaft dilated at middle and fringed with hair above, the branches in female short, dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; abdomen broad, flattened, the 3rd to terminal segments with large lateral tufts of hair, a large anal tuft. Fore wing broad; vein 3 from before angle of cell; 4, 5 separate at origin; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell very long; veins 3, 4, 5 well separated at origin; 6 from well below upper angle.

A. Abdomen with the lateral tufts crimson; no orange on inner margin of fore wing below or on costa of hind wing above.
  a. Fore wing with silvery blue spots at base ...... *æagrus.*
  b. Fore wing with short crimson streaks at base below costa and median nervure ...... *mena.*
B. Abdomen with the lateral tufts black; the inner margin of fore wing below and costa of hind wing above orange ...... *subapicalis.*

745. Dinia æagrus.

Sphinx aeagrus, Cram. Pap. Exot. iii. pl. 198 C (1779); Druce, Biol. Centr.-Am., Het. i. p. 65; Kirby, Cat. Het. p. 151.
Glaucopis auge, Wlk. i. 189 (nec Linn.).

♂. Head, thorax, and abdomen black-brown, the last slightly shot with blue, the lateral and anal tufts bright crimson, the tufts on anal segment more or less mixed with brown; coxæ white; wings hyaline, the veins and margins black-brown. Fore wing with two silvery blue spots at base; a brown fascia on inner margin with crimson streak on its medial part; a more or less developed discocellular black bar. Hind wing with rather broad terminal black band with waved inner edge.

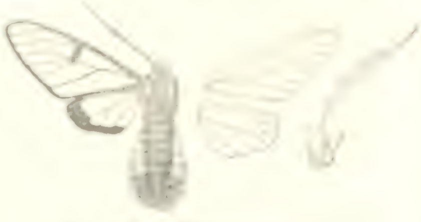
Fig. 158.—*Dinia æagrus*, ♂. ½.

♀ without white on coxæ.

Hab. Mexico, Cordova, Jalapa, Coatepec, Orizaba, Guerrero, Vera Cruz, Tabasco, Durango (*Rümeli*, *Brooks*, *Hoege*, *Trujillo*, *Smith*, *Godman*, *Elwes*); Guatemala, Vera Paz (*Champion*); Costa Rica, Irazu (*Rogers*), Santa Clara (*Zurcher*); Nicaragua, Chontales (*Belt*);

Panama, Chiriqui (*Champion*): Godman-Salvin Coll.; Honduras, Veragua; Brazil, Rio Janeiro. *Exp.* 40 millim.

746. Dinia mena.

Eunomia mena, Hübn. Samml. ex. Schmett. ii. (1827); Kirby, Cat. Het. p. 152.
Glaucopis saucia, Wlk. i. 190 (1854); Kirby, Cat. Het. p. 152.

♂. Head, thorax, and abdomen black-brown, the last with the lateral tufts bright crimson; tegulæ with white spots; patagia streaked with white; coxæ white; wings hyaline, the veins and margins black-brown. Fore wing with short crimson streaks below base of costa and median nervure and above vein 1; a black fascia on inner margin with a crimson streak on its medial portion; a discocellular black bar. Hind wing with terminal black band varying somewhat in width and with waved inner edge.

♀ without white on coxæ.

Some specimens have crimson bands on median segments of abdomen.

Hab. Colombia, type *saucia*, Bogota (*Vergara*, *Buckley*); Venezuela; Trinidad (*Caracciolo*); Brazil. *Exp.* 40 millim.

747. Dinia subapicalis. (Plate XII. fig. 12.)

Glaucopis subapicalis, Wlk. i. 190 (1854); Kirby, Cat. Het. p. 152.
Lasioprocta merra, Wallengr. Wien. Ent. Mon. iv. p. 41 (1860); Kirby, Cat. Het. p. 151.

Head, thorax, and abdomen black, the last with three crimson dorsal bands on medial segments; wings hyaline, the veins, and margins rather broadly, black. Fore wing with slight crimson streaks below base of costa and on inner margin; a black discocellular bar conjoined to the costal fascia; the terminal band with minutely waved inner edge dentate at vein 2; the basal half of inner margin orange below, slightly showing through to upper side. Hind wing with the medial part of costa streaked with orange; the terminal black band very wide and with waved inner edge.

Hab. Peru, Lima, type, Callao (*J. J. Walker*). *Exp.* 40 millim. Type† *merra* in Mus. Stockholm.

Genus MESOLASIA, nov.

Type, *M. hæmorrhoidalis.*

Proboscis fully developed; palpi obliquely upturned, the 3rd joint short and somewhat porrect; antennæ bipectinate, with short branches dilated at extremity, the shaft fringed above with thick hair at middle; head and thorax clothed with rough hair; tibiæ with the spurs short. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell very long; vein 3 from before angle; 5 from just above angle; 7 from before upper angle.

Sect. I. Abdomen clothed with rough hair.

A. Abdomen with basal crimson band	*hæmorrhoidalis.*
B. Abdomen without basal crimson band	*paula.*

748. Mesolasia hæmorrhoidalis.

Sphinx hæmorrhoidalis, Stoll, Suppl. Cram. pl. 12. f. 1 (1790); Druce, Biol. Centr.-Am., Het. i. p. 64; Kirby, Cat. Het. p. 152.
Æthria hæmorrhœa, Hubn. Verz. p. 120 (1827).

♂. Head and thorax black; palpi white below; shoulders with large white spots; coxæ white; abdomen with the 1st and last four segments crimson, the medial segments black; wings hyaline, the veins and margins broadly black. Fore wing with black discocellular band from the costal fascia to or to just above vein 2, the terminal band expanding at vein 2, its inner edge waved.

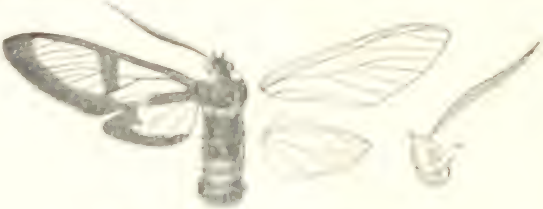

Fig. 159. *Mesolasia hæmorrhoidalis*, ♂. 1/1.

Hind wing with discocellular band conjoined to the costal fascia, separated from or conjoined to the apical part of terminal band, which expands into dentate marks towards tornus.

♀ without white on palpi and fore coxæ.

Hab. Br. Honduras (*Blancaneaux*), 1 ♀ Godman-Salvin Coll.; Ecuador; Brazil, Rio Janeiro. *Exp.* 54 millim.

749. Mesolasia paula. (Plate XIII. fig. 15.)

Æthria paula, Schaus, P. Z. S. 1894. p. 227.

♀. Black; shoulders with white spots; abdomen with the last three segments crimson above. Fore wing with the interspaces hyaline, leaving broad black margins; a discoidal spot conjoined to the costa and extending almost down to vein 2; the interspaces between veins 4 and 7 with fine streaks from terminal band, the one above 5 extending to cell; the terminal band expanding above tornus. Hind wing with the interspaces hyaline, leaving broad black margins, the terminal band expanding widely on apical area and towards tornus.

Hab. Brazil, São Paulo, Casa Branca, 1 ♀. *Exp.* 54 millim. Type † in Coll. Schaus.

Sect. II. Abdomen smoothly scaled.
A. Hind wing with two subapical hyaline spots.............. *melanobasis.*
B. Hind wing without subapical hyaline spots .... *ornata.*

750. Mesolasia melanobasis. (Plate XIII. fig. 8.)

Hæmaterion melanobasis, Druce, A. M. N. H. (6) xx. p. 304 (1897).

Head and thorax black; abdomen black, the last three segments above, the last two below scarlet, the first segment with white dorsal patch, the other black segments with dorsal points; sublateral series of white points on the black segments. Fore wing hyaline, the basal area black; the margins broadly black; the terminal band with waved inner edge and expanding towards tornus; a discoidal black band conjoined to the costal fascia. Hind wing hyaline, the veins black, the terminal area black almost to origin of vein 2 with sinuous inner edge; two small hyaline subapical spots.

Hab. Brazil, Theresopolis, 1 ♀, Castro Paraña, 1 ♂. *Exp.* 42 millim. Type† in Coll. Druce.

*751. Mesolasia ornata.

Læmocharis ornata, Ménétr. Cat. Lép. Pét. ii. p. 139, pl. 14. f. 2 (1857); Kirby, Cat. Het. p. 152.

Head and thorax black; palpi white in front; tegulæ with white patches; patagia edged with white; abdomen with the first three segments black, with a white spot at base of first and on posterior edge of each segment; the other segments crimson, with dorsal series of white points on black spots; the ventral surface with paired series of five white spots, the extremity crimson; wings hyaline, the veins, and margins broadly, black. Fore wing with yellowish streak on inner area; the black discoidal band conjoined to costal fascia; the terminal band expanding towards apex. Hind wing with the terminal band very broad; the inner area yellowish, especially below.

Hab. Brazil, Minas Geraes. *Exp.* 42 millim. This species is unknown to me.

Genus TRICHURA.

	Type.
Trichura, Hübn. Verz. p. 126 (1827)..	*druryi.*
Cercophora, Herr.-Schäff. Aussereur. Schmett. i. p. 22 (1854)	*druryi.*

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd short and blunt; antennæ with the shaft dilated at middle and clothed with rough hair, bipectinate, with short branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; abdomen with dorsal tufts of hair on 1st segment, the 2nd segment strongly constricted, the terminal segment with slight lateral tufts. Fore wing with vein 3 from well before angle of cell; 5 from well above angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell extremely long; vein 3 from well before angle; 5 from well above angle; 6 from below upper angle; the inner area with a lobe clothed with hair.

Sect. I. Abdomen of male with long appendage on terminal segment above claspers, thickly clothed with scales.

- A. Fore wing hyaline yellow.
  - *a.* Abdomen with series of sublateral white spots beyond the white ventral patch................................... *cerberus.*
  - *b.* Abdomen without sublateral white spots .... *melanosoma.*
- B. Fore wing hyaline white,
  - *a.* Abdomen with a pair of white spots beyond the ventral patch; the black margins to wing and discoidal patch narrow, an orange streak above inner margin of fore wing.............................. *esmeralda.*

b. Abdomen without white spots beyond the ventral patch; the black margins and discoidal patch broad, no orange above inner margin of fore wing .... *latifascia*

752. Trichura cerberus.

Sphynx cerberus, Pall. Spic. Zool. fasc. ix. p. 27, pl. 2. f. 8 (1772); Kirby, Cat. Het. p. 154.
Zygæna caudata, Fabr. Gen. Ins. p. 277 (1777).
Cercophora nephele, Herr.-Sch. ff. Aussereur. Schmett. p. 80, f. 266 (1855).

♂. Head, thorax, and abdomen black; palpi in front and coxæ white; frons, vertex of head, tegulæ, streaks on patagia, patches on metathorax and sides of thorax metallic green; shoulders and sides of thorax with yellow spots; abdomen with dorsal and lateral series of metallic blue-green spots, forming dorsal bands on 2nd and 3rd segments; a ventral white patch at base and sublateral series of white spots; wings hyaline, the veins and margins black. Fore wing yellow hyaline with discoidal black bar; the terminal band expanding slightly to costa and below vein 2. Hind wing with apical black patch; the inner area black.

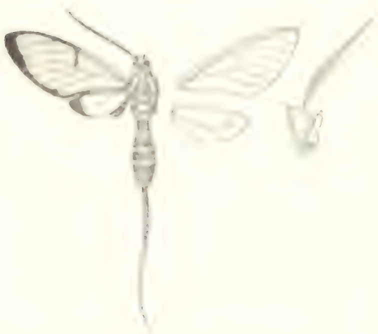

Fig. 160. *Trichura cerberus*, ♂. 1

♀ without white on palpi and coxæ.

Hab. Trinidad, 1 ♂; Brazil, São Paulo and Rio Janeiro, 1 ♂, 3 ♀. *Exp.*, ♂ 40, ♀ 44 millim.

753. Trichura melanosoma, n. sp. (Plate XII. fig. 5.)

♂. Head, thorax, and abdomen black; frons, vertex of head, tegulæ, metathorax, coxæ, and base of dorsum of abdomen with patches of deep blue; abdomen with sublateral white streaks on the constricted 2nd segment; wings hyaline yellow, the veins with black scales, the margins rather narrowly black. Fore wing with discoidal black bar; the terminal band expanding into a large patch towards apex and dentate below vein 2. Hind wing with the terminal band expanding towards apex; the inner area black.

Hab. Brazil, St. Catharina, 1 ♂ type. *Exp.* 40 millim.

754. Trichura esmeralda.

Glaucopis esmeralda, Wlk. i. 194 (1854); Butl. Ill. Het. i. p. 39, pl. 13. f. 11; Druce, Biol. Centr.-Am., Het. i. p. 65, pl. 7. f. 4; Kirby, Cat. Het. p. 154.

♂. Head, thorax, and abdomen black; frons, vertex of head, tegulæ, streaks on patagia, and spots on thorax above and at sides metallic blue-green; coxæ white; abdomen with metallic blue dorsal bands on first three segments, and dorsal and subdorsal spots on the remaining segments; a ventral white patch on the constricted segments followed by a pair of sublateral spots; wings hyaline, the veins, and margins narrowly, black. Fore wing with orange spot at base of median nervure and streak above inner margin; a narrow discocellular bar. Hind wing with apical black patch diminishing to vein 2; the lobe on inner margin black.

♀ without white on fore and hind coxæ.

Hab. HONDURAS, type, Sarstoon River (*Blancaneaux*); GUATEMALA, Vera Paz (*Champion*), Godman-Salvin Coll. *Exp.* 40 millim.

Subsp. 1. Abdomen with complete series of sublateral white spots, and sometimes with one to three hyaline points on apical patch of hind wing.—COLOMBIA.

755. Trichura latifascia.

Glaucopis latifascia, Wlk. i. 193 (1854); Butl. Ill. Het. i. p. 38, pl. 11, f. 7; Kirby, Cat. Het. p. 154.

♂. Head, thorax, and abdomen black, shot with metallic blue-green; palpi white in front; coxæ white; abdomen with lateral and ventral white patch on the constricted segment; wings hyaline, the veins, and margins rather broadly, black. Fore wing with the base black with metallic blue point; a discoidal black bar varying in width and conjoined to costal fascia; the terminal band rather wider at middle and at tornus. Hind wing with apical black patch narrowing to a point at vein 2; the lobe on inner margin black.

♀ without white on palpi and coxæ.

Hab. AMAZONS, Para (*Bates*), 2 ♂, 1 ♀ type. *Exp.* 36 millim.

Subsp. *ismene,* Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 639, pl. 8. f. 9 (1877); Kirby, Cat. Het. p. 155.
ribbei, Druce, Biol. Centr.-Am., Het i. p. 65, pl. 8. f. 15 (1884); Kirby, Cat. Het. p. 154.

Fore wing with the discoidal bar much narrower.

Hab. PANAMA, type † *ribbei* Coll. Staudinger; Taboga I. (*G. F. Mathew*), 1 ♀; COLOMBIA, Bogota, 1 ♂ (*Buckley*); CAYENNE, type† *ismene* in Coll. Staudinger.

SECT. II. Abdomen of male without appendage on terminal segment.

A. Head, thorax, and abdomen black.
a. Head, thorax, and abdomen without orange markings.
a^1. Fore wing without orange streak above inner margin .... *coarctata.*
b^1. Fore wing with orange streak above inner margin.
a^2. Abdomen with dorsal and subdorsal series of blue spots .... *druryi.*
b^2. Abdomen without blue spots .... *cyanea.*
b. Head, thorax, or abdomen with orange markings.
a^1. Antennæ orange; abdomen with terminal segments black .... *mathina.*
b^1. Antennæ black.
a^2. Abdomen with lateral orange patches on 3rd segment .... *dixanthia.*
b^2. Abdomen with orange band on 1st four segments followed by dorsal spots .... *aurifera.*

B. Head and thorax black suffused with white, abdomen with 1st three segments black, the others clothed with yellow hair . . . . *frigida.*

756. Trichura coarctata.

Sphinx coarctata, Drury, Ill. Ex. Ent. ii. pl. 27. f. 2 (1773); Kirby, Cat. Het. p. 154.

♂. Head, thorax, and abdomen black; palpi white in front; frons, vertex of head, tegulæ, patagia, thorax above and at sides with patches of metallic green; coxæ and fore femora in front white; abdomen with metallic green dorsal and lateral marks on 1st segment, dorsal bands on the next two segments, and paired dorsal and lateral spots on the remaining segments; the 2nd segment white below, the 3rd with pair of spots; wings hyaline, the veins and margins black. Fore wing yellowish hyaline, with discocellular bar and fascia on inner margin; the terminal band widest below apex and slightly dentate at vein 2. Hind wing with apical patch and the lobe on inner margin black.

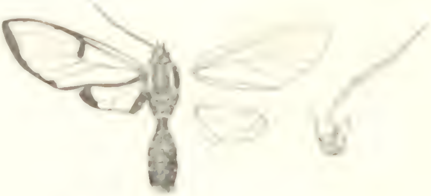

Fig. 161.—*Trichura coarctata*, ♂. ½.

♀ without the white on palpi and coxæ.

A ♂ from San Leopold, Brazil, Zeller Coll., has the terminal band of fore wing regularly widening to costa.

Hab. Brazil, Pernambuco, 1 ♂, Para (*Bates*), 1 ♀. *Exp.* 42 millim.

757. Trichura druryi.

Trichura druryi, Hubn. Verz. p. 126 (1827). Druce, Biol.-Centr. Am., Het. i. p. 65; Kirby, Cat. Het. p. 154.
Sphinx coarctata, Cram. Pap. Exot. i. pl. 4. F, G (nec Drury).

♂. Head, thorax, and abdomen black; frons, tegulæ, patagia, thorax above and at sides with metallic blue-green patches; coxæ white; abdomen with dorsal metallic green bands on first three segments and dorsal and lateral spots on the others; the 2nd segment white below, the 3rd with a pair of spots; wings hyaline, the veins and margins black. Fore wing with orange spot at base and streak on basal half of fascia on inner margin; a slender discocellular bar; the terminal band expanding slightly to apex and dentate at vein 2. Hind wing with apical black patch; the lobe on inner margin black.

♀ without white on fore and mid coxæ; the discocellular bar of fore wing broad.

Hab. MEXICO, Cuesta de Misantla, 1 ♀ (*Trujillo*); GUATEMALA, Vera Paz, 1 ♂ (*Champion*), Godman-Salvin Coll.; HONDURAS, 1 ♀; PANAMA, Chiriqui. *Exp.* 42 millim.

* 758. **Trichura cyanea.** (Plate XII. fig. 25.)

Trichura cyanea, Schaus, P. Z. S. 1892, p. 276.

♂. Black; head, tegulæ, and legs with patches of metallic blue; coxæ with white spots; abdomen with some orange on lateral tubercles and white at base below; sublateral white streaks on 3rd and 4th segments; wings hyaline, with black margins; the veins black, clothed with orange scales below. Fore wing with the costal area to beyond middle and inner area to middle tinged with orange; the terminal band expanding slightly towards apex and above tornus. Hind wing with the terminal band expanding on apical area; the inner area black.

Hab. BRAZIL, Petropolis. *Exp.* 42 millim. Type † in Coll. Schaus.

* 759. **Trichura mathina.** (Plate XII. fig. 17.)

Trichura mathina, Druce, A. M. N. H. (7) i. p. 402 (1898).

♂. Head black and orange; palpi yellow, with black line on basal joint; antennæ orange, the shaft black towards base; thorax black; tegulæ orange edged with black; patagia edged with orange; metathorax with some orange hair; legs orange striped with black; fore coxæ and inside of femora white; abdomen black, with orange bands on first three segments and some orange hair on 1st segment, the 2nd segment white below, the 3rd with sublateral white spots; wings orange hyaline, the margins narrowly black, the veins with black scales. Fore wing with the terminal band slightly dentate below vein 2. Hind wing with discocellular line joining the terminal band; the inner area black.

Hab. CAYENNE, type in Coll. Druce. *Exp.* 42 millim.

760. **Trichura dixanthia**, n. sp. (Plate XVII. fig. 18.)

♂. Head, thorax, and abdomen greenish black, the two former with metallic blue-green patches; abdomen with large lateral orange patches on 3rd segment; wings hyaline, the veins, and margins rather narrowly, black. Fore wing with black patch at base of inner area; the inner edge of terminal band of both wings minutely waved; inner area of hind wing black.

Hab. BRAZIL, Minas Geraës, 1 ♂ type. *Exp.* 38 millim.

761. **Trichura aurifera.** (Plate XII. fig. 18.)

Trichura aurifera, Butl. Journ. Linn. Soc., Zool. xii. p. 405 (1876); Kirby, Cat. Het. p. 154.

♂. Head, thorax, and abdomen black; palpi, frons, a streak on vertex of head, tegulæ in front, spots on shoulders, vertex and sides of thorax, streaks on patagia, and the greater part of legs orange;

coxæ white; abdomen with dorsal orange bands on first four segments, the lateral tubercles of 1st segment orange; dorsal orange spots on 5th and 6th segments; lateral blue spots and a dorsal spot on terminal segment; the 2nd segment white below, the 3rd with pair of spots; wings yellow hyaline, the veins and margins black. Fore wing with orange streak below basal half of costa and above inner margin; a slender black discocellular bar; the terminal band expanding to apex and dentate at vein 2. Hind wing with apical black patch, slightly edged with orange on inner side; the lobe on inner margin clothed with orange and black hair.

♀ without the white on coxæ.

Hab. Amazons, Para, 2 ♀ (*Bates*), type, 1 ♂ (*Austen*). *Exp.*, ♂ 42, ♀ 46 millim.

*762. Trichura ? frigida.

Eurota ? frigida, Burm. Descr. Rep. Arg. v. p. 516 (1878); Atlas, pl. xxiv. f. 6; Kirby, Cat. Het. p. 148.

♂. Head and thorax black, clothed with white hair; antennæ black, yellowish towards base; mesothorax black at sides; legs black mixed with white scales; abdomen with the first three segments black, the others clothed with yellow hair; a dorsal series of triangular white spots defined with black on yellow segments; ventral surface white; wings hyaline, with sparse small white scales, the veins and margins black irrorated with white scales, especially at base and on inner margin of fore wing. Hind wing with the discocellulars and terminal band black.

Hab. Argentina, Buenos Ayres. *Exp.* 30 millim. This species is unknown to me.

Genus COREMATURA.

Type.

Corematura, Butl. Journ. Linn. Soc., Zool. xii. p. 403 (1876)... *chrysogastra*.

Proboscis well developed; palpi upturned to vertex of head, the 3rd joint short and porrect; antennæ bipectinate, with short branches dilated at extremity; tibiæ with the spurs short; abdomen long, the 2nd and 3rd segments constricted, the last segment with large thick brush of hair. Fore wing with vein 3 from long before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked, or 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from well before angle; 4, 5 from angle or 5 above angle; 6, 7 from upper angle.

Sect. I. Abdomen with the 2nd and 3rd segments slightly constricted; fore wing with fringe of recurved hair on inner margin articulating with hair on upperside of costa of hind wing; vein 11 stalked with 7, 8, 9, 10.

763. Corematura chrysogastra.

Glaucopis chrysogastra, Perty, Del. Anim. Art. p. 157, pl. 31. f. 10 (1834); Kirby, Cat. Het. p. 152.
Glaucopis postflava, Guér. Icon. Règne Anim., Ins. p. 501 (1844); Kirby, Cat. Het. p. 152.
Eunomia abdominalis, Wlk. vii. 1617 (1856).

Head and thorax black; palpi orange in front; orange marks on vertex of head and behind the eyes; tegulæ, patagia, and vertex of thorax striped with orange; thorax orange below; abdomen with dorsal black marks on first five segments with short orange streaks on them, the 3rd, 4th, and 5th segments with crimson subdorsal fascia, the terminal segments black; the ventral surface orange except terminal segments; wings hyaline, the veins, and margins narrowly, black; some orange scales at base; hind wing with some black hair on inner area.

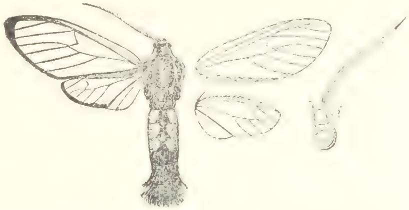

Fig. 162.—*Corematura chrysogastra*, ♂. 1/1.

Hab. Ecuador (*Buckley*); Bolivia; Up. Amazons, Archidona, type *abdominalis*; Lr. Amazons (*Trail*), São Paulo. *Exp.* 38 millim.

Sect. II. Abdomen with the 2nd and 3rd segments strongly constricted; fore wing with vein 11 from cell and without fringe of hair on inner margin; hind wing with vein 5 from well above angle.

764. Corematura aliaria.

Trichura aliaria, Druce, P. Z. S. 1890, p. 494, pl. 42. f. 3.

♂. Head and thorax black; points on frons, vertex of head, and tegulæ fulvous yellow; palpi in front, sides of frons and coxæ white; abdomen blue-black, the first two segments white below, a forked streak on 3rd segment; wings hyaline, the veins and margins black. Fore wing with discoidal black bar; the costa more broadly black from end of cell to apex; the terminal band expanding at vein 2. Hind wing with apical black patch; the lobe of inner margin black.

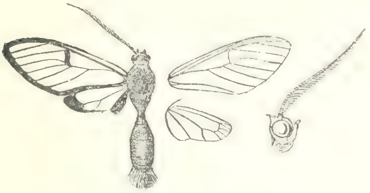

Fig. 163.—*Corematura aliaria*, ♂. 1/1.

Hab. Cayenne; Brazil, São Paulo, 1 ♂, Pebas, type† in Coll. Druce. *Exp.* 36 millim.

Genus **PEZAPTERA.**

Type.
Pezaptera, Butl. Journ. Linn. Soc., Zool. xii. p. 404 (1876) .... *sordida.*

Proboscis well developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs short; abdomen with the 2nd and 3rd segments somewhat constricted, the terminal segment with lateral and anal tufts. Fore wing with veins 3, 4, 5 from angle of cell; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell long, vein 2 from well before angle; 3, 4 separate at origin; 5 curved from below middle of discocellulars; 6, 7 from upper angle.

765. Pezaptera sordida.

Eunomia sordida, Wlk. vii. 1617 (1856); Kirby, Cat. Het. p. 153.
Phœa divisa, Wlk. xxxi. 83 (1864).

♂. Black-brown; antennæ white at tips; abdomen with lateral white spots on first two segments, a ventral patch on 1st segment, the lateral anal tufts crimson; wings hyaline, the veins, and margins rather broadly, black. Fore wing with black discocellular patch; the terminal band dilated to costa and dentate at vein 2. Hind wing with the terminal band expanding widely on apical area.

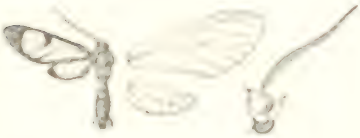
Fig. 164. *Pezaptera sordida*, ♂. 1.

Hab. AMAZONS, Ega, type *divisa*, Villa Nova, Santarem, type (*Bates*). *Exp.* 24 millim.

Genus ÆTHRIA.

	Type
Æthria, Hübn. Verz. p. 120 (1827)	*leucaspis*.
Scytale, Feld. Reis. Nov. pl. 102 f. 24 (1874); non descr. nec Latr. Rept. (1802)	*platyzona*.

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd short; antennæ bipectinate, with short branches dilated distally and ending in a bristle; tibiæ with the spurs short; abdomen with the 2nd and 3rd segments slightly constricted. Fore wing broad; vein 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell extremely long; vein 3 from near angle; 4, 5 widely separated at origin; 6 from well below upper angle.

SECT I. Fore wing with vein 5 from well above angle of cell, 3 near angle; antennæ with the shaft dilated at middle and fringed with scales above.

A. Abdomen crimson except basal segment, anal tufts intersected with black	*sarcosoma*.
B. Abdomen black, the last two segments orange-red	*andromacha*.
C. Abdomen black, anal tufts crimson	*carnicauda*.
D. Abdomen black with blue segmental lines, anal tufts yellow	[illegible]

766. Æthria sarcosoma.

Eunomia sarcosoma, Butl. Journ. Linn. Soc., Zool. xii. p. 401 (1876); Kirby, Cat. Het. p. 151.
Dinia laudamia, Druce, P. Z. S. 1890, p. 494, pl. 42. f. 1; Kirby, Cat. Het. p. 152.

♂. Head and thorax black; palpi in front, frons, a line behind eyes, tegulæ in front, patches on shoulders, patagia, metathorax, sides of thorax, and legs white, tegulæ with opalescent blue marks; abdomen with the 1st segment blue-black, an opalescent bar on dorsum and whitish marks at sides; the other segments crimson, with slight dorsal white spots and black segmental lines towards base; the medial part of anal segment black; the ventral surface with the first three and terminal segment white; wings hyaline, the veins, and margins rather broadly, black. Fore wing with white point at base of costa; the fascia on inner margin bluish black and expanding to base; a black discoidal bar conjoined to costal fascia; the terminal band nearly even throughout. Hind wing with the terminal fascia expanding to apex and below vein 2.

Hab. Colombia, Cundinamarca, 1 ♂ type. *Exp.* 32 millim. Type† *laudamia* in Coll. Druce.

767. Æthria andromacha.

Zygæna andromacha, Fabr. Syst. Ent. p. 830 (1775); Butl. Ill. Het. i. p. 38, pl. 13. f. 3; Kirby, Cat. Het. p. 150.
Eunomia sanguiflua, Geyer, Zutr. ex. Schmett. iv. p. 25, ff. 697-698 (1832); Kirby, Cat. Het. p. 150.
Glaucopis finalis, Wlk. i. 190 (1854).
Eunomia pennata, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 638, pl. 8. f. 8 (1877); Kirby, Cat. Het. p. 151.

♂. Head, thorax, and abdomen black; palpi white in front; shoulders with white spots; patagia streaked with blue; fore coxæ white; abdomen with the last two segments and tufts orange-red, the first two segments white below; wings hyaline, the veins, and margins rather broadly, black. Fore wing with the base black, with a blue spot on costa, its edge running obliquely to the fascia on inner margin; a discocellular black bar conjoined to the costal fascia; the terminal band nearly even throughout. Hind wing with the terminal band narrowing to tornus.

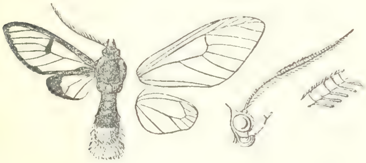
Fig. 165.—*Æthria andromacha*, ♂. 1/1.

♀ without the white on palpi, shoulders, coxæ, and abdomen; hind wing with the terminal band dentate below vein 2.

Ab. 1. Abdomen with the extremity crimson.

Hab. Venezuela, Amazons, Para (*Bates*), type *finalis*. *Exp.* 34 millim. Type† *pennata* in Coll. Staudinger.

768. Æthria carnicauda. (Plate XII. fig. 9.)

Eunomia carnicauda, Butl. Journ. Linn. Soc., Zool. xii. p. 400 (1876); Kirby, Cat. Het. p. 150.

♀. Black; head, thorax, and abdomen slightly shot with blue, the last with the tufts on terminal segments crimson; wings hyaline, the veins, and margins rather broadly, black. Fore wing with the base black, with a blue spot on costa, its edge running obliquely to near middle of fascia on inner margin; a discoidal black bar conjoined to the costal fascia; the terminal band sometimes slightly expanding at tornus. Hind wing with the terminal band wide and expanding towards apex and below vein 2.

♂. Shoulders with white spots; abdomen with the base of ventral surface white.

Hab. TRINIDAD (*Hart*); AMAZONS, Para (*Bates*), type. *Exp.* 34 millim.

769. **Æthria fulvicauda.** (Plate XII. fig. 10.)

Eunomia fulvicauda, Butl. Journ. Linn. Soc., Zool. xii. p. 401 (1876); Kirby, Cat. Het. p. 151.

♂. Head, thorax, and abdomen black; palpi and tegulæ white in front; fore and hind coxæ white; patagia and thorax above and at sides with patches of metallic blue; abdomen with terminal blue bands; the tufts on terminal segments tipped with bright yellow; the first three and terminal segments white below; wings hyaline, the veins and margins black. Fore wing with the base black, with blue patch and oblique outer edge; a black discoidal bar conjoined to costal fascia; the terminal band narrow, slightly expanding at tornus. Hind wing with the terminal band very wide at costa, narrowing to a point before tornus.

Hab. BRAZIL, São Paulo, 1 ♂ type. *Exp.* 28 millim.

SECT. II. Fore wing with vein 5 from or from close to angle of cell; vein 3 from well before angle; antennæ with the shaft not dilated or fringed with scales.

A. Abdomen with the anal tufts crimson.	
a. Abdomen with complete lateral series of crimson spots, the ventral surface ochreous	*stipata.*
b. Abdomen with crimson lateral spots on 1st four segments only, the ventral surface with white patches	*eburneifera.*
c. Abdomen without lateral crimson spots.	
a^1. Abdomen with lateral crimson patches on terminal segments.	
a^2. Thorax and abdomen without white lines	*gracilis.*
b^2. Tegulæ and patagia edged with white; thorax and abdomen with two dorsal white lines	*dorsilineata.*
b^1. Abdomen with the anal tufts only crimson.	
a^2. Hind wing with apical black patch.	
a^3. Hind wing without subapical hyaline spot	*leucaspis.*
b^3. Hind wing with subapical hyaline spot	*daltha.*
b^2. Hind wing with discoidal black bar separate from the terminal band	*acina.*
B. Abdomen with the anal tufts black.	
a. Abdomen with the 2nd, 3rd, 4th, and 5th segments yellow.	*platyzona.*
b. Abdomen entirely blue above	*rubipectus.*

770. **Æthria stipata.**

Glaucopis stipata, Wlk. i. 184 (1854); Butl. Ill. Het. i. p. 38, pl. 13. f. 8; Kirby, Cat. Het. p. 150.

Head and thorax black-brown; palpi in front, frons, points on tegulæ and shoulders, patches on sides of thorax, coxæ, the end of tibiæ and spurs white; patagia slightly streaked with white scales; abdomen black above, slightly shot with blue; a dorsal series of yellowish spots; the tufts on anal segment crimson at sides, black at middle; the lateral and ventral surfaces ochreous, with crimson series of lateral spots and black ventral marks; wings hyaline, the veins, and margins rather broadly, black. Fore wing with white point at base of costa; the fascia on inner margin expanding to base and with slight yellowish streaks on it; a discoidal black spot; the terminal band expanding to apex and below vein 2. Hind wing with the terminal band wide at apex, narrowing to tornus.

Hab. Amazons, Para, 2 ♂, types (*Bates*). *Exp.* 34 millim.

*771. Æthria eburneifera.

Glaucopis eburneifera, Feld. Reis. Nov. pl. 102. f. 21 (1874); Kirby, Cat. Het. p. 151.

♂. Head, thorax, and abdomen black; palpi in front, basal joint of antennæ, cheeks, coxæ, and stripes on fore femora white; tegulæ, patagia, and metathorax with patches of blue; abdomen with the first three segments blue above; paired dorsal points and lateral crimson spots on first four segments; a dorsal series of white points and lateral series after 4th segment; the ventral surface with triangular white patches on 2nd to 4th segments and paired spots on the next two. Fore wing hyaline, with the veins, and margins broadly, black; the basal area black, with basal blue patch; a discoidal black bar conjoined to costal fascia; the terminal band expanding at tornus and slightly towards apex. Hind wing hyaline, the veins, base, and a broad terminal band black, the last expanding between veins 2 and 1.

Hab. Amazons. *Exp.* 38 millim. Type † in Coll. Rothschild.

772. Æthria gracilis.

Hyela gracilis, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 637, pl. 8. f. 6 (1877); Kirby, Cat. Het. p. 150.

♂. Head, thorax, and abdomen black-brown suffused with whitish blue; abdomen with slight white dorsal streak; the sides of last two segments crimson, the terminal tufts crimson with three slight black tufts in them; wings opalescent hyaline, the veins, and margins slenderly, black. Fore wing with the base of inner margin bluish; a slender discocellular bar conjoined to costal fascia.

♀. Abdomen with the terminal segment and anal tuft crimson; fore wing without the discoidal bar; both wings with the terminal band rather broader.

Hab. Surinam, type † ♀ in Coll. Staudinger; Brazil, Petropolis, 1 ♂ (*H. Doer*). *Exp.* 34 millim.

773. Æthria dorsilineata, n. sp. (Plate XII. fig. 19.)

♀. Head, thorax, and abdomen black; tegulæ and patagia edged with white; thorax and abdomen with two fine dorsal white lines;

legs streaked with white; abdomen crimson below, the terminal segments mostly crimson above; the lateral tufts crimson, the medial tuft black; wings milky hyaline, the veins and margins narrowly black. Fore wing with the terminal band expanding to apex.

Hab. Jamaica, 1 ♂, type. *Exp.* 24 millim.

774. Æthria leucaspis.

Sphinx leucaspis, Cram. Pap. Exot. i. pl. 52 ff. C, D (1775). Kirby, Cat. Het. p. 151.

♂. Head and thorax black; palpi in front, a line behind eyes, spots on shoulders and femora and coxæ white; tegulæ and patagia metallic blue; abdomen black shot with metallic blue; blue-edged white dorsal and lateral series of spots; series of large white sublateral spots; the tuft on anal segment crimson; wings hyaline, the veins and margins black. Fore wing with the base black with blue patch, its outer edge oblique; a discocellular black bar conjoined to costal fascia; the terminal band expanding to apex. Hind wing with the terminal band expanding to costa and with irregular inner edge.

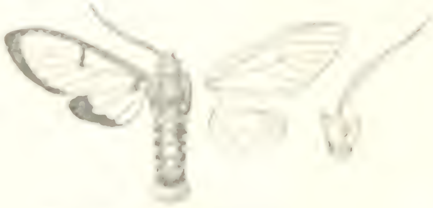

Fig. 166. *Æthria leucaspis*, ♂. ½.

Ab. 1. Abdomen with the anal tufts orange.—Cayenne, Coll. Staudinger.

Hab. Venezuela; Cayenne; Brazil, 5 ♂. *Exp.* 44 millim.

Subsp. 1. Smaller; frons and front of tegulæ white; abdomen with the dorsal and lateral spots white; fore wing with the discoidal band, hind wing with the terminal band, broader.

Hab. Bolivia, Chiquitos, 1 ♂. *Exp.* 32 millim.

*775. Æthria daltha. (Plate XII. fig. 14.)

Eunomia daltha, Druce, A. M. N. H. (6) xv. p. 44 (1895).

♂. Head, thorax, and abdomen black; palpi and basal joint of antennæ white in front; cheeks, spots on shoulders, coxæ, and stripes on legs white; tegulæ and patagia with patches of blue; abdomen with dorsal and lateral series of blue and white points, the lateral anal tufts crimson; the ventral surface white except terminal segments, a white patch before the anal tufts; wings hyaline, the veins, and margins rather broadly, black. Fore wing with the basal area black with some blue at base; a discoidal bar; the terminal band expanding at tornus. Hind wing with the terminal band expanding widely towards apex and enclosing small hyaline spots above and below vein 6, the band somewhat dentate towards tornus.

Hab. Amazons, Para. *Exp.* 44 millim. Type † in Coll. Druce.

776. Æthria ocina.

Eunomia ocina, Druce, P. Z. S. 1883, p. 379, pl. 39. f. 11; Kirby, Cat. Het. p. 151.

♂. Head, thorax, and abdomen black; palpi and basal joint of antennæ in front, cheeks, spots on shoulders, coxæ and stripes on legs white; metathorax with metallic blue patch; abdomen dorsally suffused with metallic blue at base; dorsal and lateral series of white spots; the anal tufts crimson and black; the ventral surface white; wings hyaline, the veins and margins black. Fore wing with the base black, with metallic blue patch; a discoidal bar; the terminal band expanding at tornus. Hind wing with discoidal black bar; the terminal black band expanding between veins 2 and 1.

Hab. Bolivia (*Buckley*), Songo, 1 ♀. *Exp.* 44 millim. Type † in Coll. Druce.

777. Æthria platyzona.

Scytale platyzona, Feld. Reis. Nov. pl. 102. f. 24 (1874); Kirby, Cat. Het. p. 151.

♂. Head and thorax black; frons and vertex of head metallic blue; legs with patches of blue; abdomen with the first and last three segments black, the four medial segments orange-yellow; wings hyaline, the veins, and margins rather broadly, black. Fore wing with the base black, with blue spot on costa and its edge running obliquely to fascia on inner margin; a discocellular black bar conjoined to the costal fascia; the terminal band expanding widely on apical area and slightly at vein 2. Hind wing with the terminal band rather broad and expanding slightly to apex and below vein 2.

Hab. Colombia, Cundinamarca. *Exp.* 44 millim.

*778. Æthria rubipectus. (Plate XII. fig. 20.)

Æthria rubipectus, Schaus, J. N. Y. Ent. Soc. vi. p. 139 (1898).

♂. Black; palpi in front, frons, neck, and edges of patagia white; thorax metallic blue, pectus and coxæ crimson; abdomen metallic blue above, the anal tufts and ventral surface black; wings hyaline, the veins, and margins narrowly, black. Fore wing with the apical area black, its inner edge dentate.

Hab. Haiti. *Exp.* 26 millim. Type † in Coll. Schaus.

Genus **PARÆTHRIA**, nov.

Type, *P. triseriata*.

Proboscis fully developed; palpi upturned, hardly reaching vertex of head; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs moderate; abdomen with a little rough hair at base on dorsum. Fore wing with veins 2, 3 on a long stalk; 5 from well above angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from just before angle; 5 from just above angle; 6, 7 shortly stalked

779. Paræthria triseriata.

Gnophæla triseriata, Herr.-Schäff. Aussereur. Schmett. f. 261 (1855); Kirby, Cat. Het. p. 147.

♂. Head, thorax, and abdomen black; frons and cheeks white; vertex of head, meso- and metathorax, shoulders and patagia, pectus, coxæ, and ends of femora with white spots; abdomen with dorsal and lateral series of white points and sublateral series of spots. Fore wing hyaline, the veins and margins broadly black; a white point at base, the terminal band expanding at tornus and towards apex. Hind wing black, with large basal hyaline patch below the cell and on inner margin.

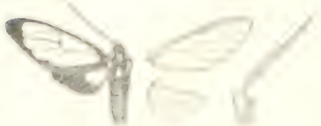

Fig. 167. *Paræthria triseriata*, ♂. ½.

Hab. Brazil, Castro Paraña; Sta. Catharina, 1 ♂. *Exp.* 32 millim.

Genus ARGYROEIDES.

Type

Argyroeides, Butl. Journ. Linn. Soc., Zool. xii. p. 403 (1876)...... *ephion.*

Proboscis well developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs moderate; abdomen with the 2nd segment laterally constricted, the terminal segment with lateral and medial tufts. Fore wing with vein 3 from well before angle of cell; 5 from above angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 3 from well before angle of cell; 5 usually from well above angle; the inner area forming a lobe clothed with hair.

Sect. I. Hind wing with vein 6 from angle of cell.

A. Hind wing with vein 5 from angle of cell.
  a. Abdomen with the terminal segments banded with red ... *strigula.*
  b. Abdomen with the terminal segments banded with orange. *menephron.*
  c. Abdomen blue-black, the ventral surface white .... *ortona.*

780. Argyroeides strigula. (Plate XIII. fig. 2.)

Argyroeides strigula, Druce, A. M. N. H. (6) xviii. p. 32 (1896).

♂. Head and thorax black; palpi with end of 2nd joint, frons below, basal joint of antennæ in front, cheeks, patches on shoulders, and coxæ white; frons above and vertex of head blue; patagia edged with orange-red above; metathorax with yellow patch; abdomen blue-black, the constricted 2nd segment yellowish white, the terminal segments with orange-red dorsal bands and yellowish-white ventral bands. Fore wing yellowish hyaline, the veins and margins narrowly black. Hind wing hyaline, the veins and margins narrowly black; the lobe and a small apical patch black.

Hab. S. Brazil, Casa Branca, 2 ♂. *Exp.* 26 millim. Type † in Coll. Druce.

781. Argyroeides menephron.

Argyroeides menephron, Druce, Biol. Centr.-Am., Het. i. p. 65, pl. 8. f. 14 (1884); Kirby, Cat. Het. p. 153.

♂. Head yellow, with black spots on frons and vertex; antennæ black towards base; thorax black; the tegulæ and patagia edged with yellow; a line on vertex and band on metathorax, thorax below, and legs yellow; abdomen black, with yellow bands at base and on last four segments, the 2nd segment yellow at sides and below; anal tufts yellow; wings hyaline, the veins and margins narrowly yellow and black. Fore wing with slight fulvous streak below apical half of costa. Hind wing with the lobe on inner margin very short and clothed with yellow and black hair.

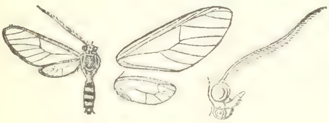

Fig. 168.
Argyroeides menephron, ♂. $\frac{1}{1}$.

Hab. PANAMA, Bugaba, 2 ♂ (*Champion*), type, Godman-Salvin Coll. *Exp.* 24 millim.

*782. Argyroeides ortona. (Plate XIII. fig. 3.)

Argyroeides ortona, Druce, P. Z. S. 1893, p. 282.

♂. Head and thorax black; palpi streaked with white; neck crimson; shoulders and coxæ with patches of white; femora striped with white; abdomen blue-black, the ventral surface white; wings hyaline, the veins and margins black. Fore wing with discoidal black spot; the area below vein 1 black, with slight hyaline streak towards tornus; the terminal band expanding widely on apical area; veins 4, 5 almost from a point. Hind wing with veins 4, 5 approximated to 6, and the costal area narrow. Abdomen hardly constricted at 2nd segment.

Hab. ECUADOR, Chiguinda (*Buckley*). *Exp.* 30 millim. Type † in Coll. Druce.

B. Hind wing with vein 5 from well above angle of cell.
  a. Abdomen with the anal tufts crimson.
    a^1. Abdomen banded with orange .... *boliviana.*
    b^1. Abdomen black.
      a^2. Patagia streaked with crimson .... *braco.*
      b^2. Patagia without crimson streak............................ *ophion.*
  b. Abdomen with the anal tufts black.
    a^1. Abdomen with the terminal segments banded with crimson above.
      a^2. Back of head with triangular yellow spot; pectus and legs ochreous .... *tricolor.*
      b^2. Back of head, pectus, and legs black...................... *sanguinea.*
    b^1. Abdomen with dorsal series of white points and suffused with blue .... *ceres.*
    c^1. Abdomen with the terminal segments banded with blue above .... *placida.*
    d^1. Abdomen without markings on terminal segments...... *minuta.*

783. Argyroeides boliviana.

Argyroeides boliviana, Druce, P. Z. S. 1883, p. 379, pl. 39. f. 12; Kirby, Cat. Het. p. 153.

♂. Head, thorax, and abdomen black; palpi, frons, vertex of head, and patches on tegulæ, patagia, and thorax orange; pectus and coxæ white; legs striped with orange; abdomen banded with orange, the lateral tufts on terminal segments and anal tufts crimson; wings yellowish hyaline, the veins, and margins narrowly, black. Fore wing with orange point at base. Hind wing with the lobe on inner margin clothed with orange hair.

Hab. Bolivia (*Garlepp*), 1 ♂. *Exp.* 28 millim. Type † in Coll. Druce.

784. Argyroeides braco.

[illegible] braco, Herr.-Schäff. Aussereur. Schmett. f. 262 (1855); Kirby, Cat. Het. p. 148.

♂. Head, thorax, and abdomen black; frons, vertex of head, and tegulæ with white points; patagia with crimson streaks; metathorax with white patch; abdomen with the constricted 2nd segment white, the terminal segments with lateral crimson stripes, and the anal tufts crimson; wings hyaline, the veins and margins narrowly black.

Hab. Brazil, Casa Branca, 2 ♂. *Exp.* 26 millim.

785. Argyroeides ophion.

Glaucopis ophion, Wlk. i. 191 (1854); Kirby, Cat. Het. p. 152.

♂. Head, thorax, and abdomen black shot with blue; white patches on coxæ and sides of thorax, and in type on palpi in front; abdomen with the tufts on terminal segment crimson, sometimes partially black at middle, the constricted segment white at sides followed by lateral series of white spots, the segments usually more or less strongly edged with white below, very strongly in type; wings hyaline, the veins, and margins narrowly, black. Fore wing yellowish. Hind wing with the lobe on inner margin black.

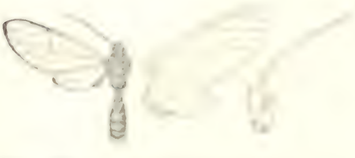
Fig. 169.—*Argyroeides ophion*, ♂. ½.

Hab. Venezuela, 3 ♂; Brazil, Sta. Catharina, 2 ♂, type. *Exp.* 32 millim.

*786. Argyroeides tricolor.

Glaucopis tricolor, Pack. Rep. Peabody Acad. i. p. 62 (1869); Kirby, Cat. Het. p. 153.

Head, thorax, and abdomen black-brown; head with deep yellow line along orbits and between antennæ, and triangular yellow spot on back of head; palpi yellow, with black stripe on outer side; pectus, legs, and basal two-thirds of abdomen ochreous yellow, the 1st striped with black; tegulæ with three yellow spots; patagia with yellow stripe; abdomen with interrupted dorsal yellow stripe on first five segments, the 3rd, 4th, and 5th segments deep scarlet; wings hyaline, the veins, and margins narrowly, black. Fore wing with the terminal band expanding towards apex, and the fascia on inner margin widening to base. Hind wing with the lobe dark brown with pale point.

Hab. AMAZONS, Marañon R. *Exp.* 36 millim. This species is unknown to me.

787. **Argyroeides sanguinea.** (Plate XIII. fig. 23.)

Argyroeides sanguinea, Schaus, J. N. York Ent. Soc. iv. p. 132 (1896).

Head and thorax black; tegulæ white; abdomen with dorsal white patch on 1st segment and ventral patch on 2nd, the 3rd to anal segments crimson above; wings hyaline, the veins and margins black. Fore wing with discocellular black bar; the terminal band expanding into a patch at apex, and dentate at vein 2. Hind wing with apical black patch; the lobe on inner margin clothed with black hair.

Hab. BRAZIL, Paraña, 1 ♂, Rio Grande do Sul, 1 ♀ (*Ihering*). *Exp.* 28 millim. Type † in Coll. Schaus.

*788. **Argyroeides ceres.** (Plate XIII. fig. 4.)

Syntrichura ceres, Druce, P. Z. S. 1893, p. 283.

♂. Head, thorax, and abdomen black; palpi in front, sides of frons, neck, and patches on pectus and coxæ white; thorax with blue patch; abdomen dorsally suffused with blue; a dorsal series of white points, the first two segments white below, the two medial and anal segments with paired white spots; wings hyaline, the veins and margins black. Fore wing with white point at base; the inner area, and a terminal band, black, the latter expanding towards apex; a discoidal black bar. Hind wing with terminal black band expanding widely towards apex and not reaching tornus; the lobe on inner area black.

Hab. BR. GUIANA, Essequibo R. (*Whitely*). *Exp.* 32 millim. Type † in Coll. Druce.

*789. **Argyroeides placida.** (Plate XIII. fig. 24.)

Argyroeides placida, Druce, A. M. N. H. (6) xx. p. 304 (1897).

♂. Head, thorax, and abdomen black; frons, vertex of head, tegulæ, patagia, and legs with patches of blue; pectus and coxæ with white patches; abdomen with the constricted 2nd segment narrowly white above, broadly below; the terminal segments with metallic blue dorsal bands; wings hyaline, the veins, and margins narrowly, black. Fore wing yellowish hyaline, the basal costal area with an orange tinge. Hind wing with the lobe black.

Hab. Ecuador, Balsapamba. *Exp.* 32 millim. Type ♂ in Coll. Druce.

790. Argyroeides minuta.

Argyroeides minuta, Druce, A. M. N. H. (6) ii. p. 240 (1888); id. Biol. Centr.-Am., Het. ii. p. 349, pl. 72. f. 3; Kirby, Cat. Het. p. 153.

♂. Black; head, thorax, and abdomen with traces of metallic blue; palpi in front, sides of frons, basal joint of antennæ in front, and patches on pectus and coxa white; abdomen with the constricted 2nd segment yellowish, ventral white bands on 4th and terminal segments; wings hyaline, the veins, and margins narrowly, black. Fore wing with the discal area yellowish hyaline. Hind wing with the lobe on inner margin black.

Hab. Honduras, 1 ♂. *Exp.* 22 millim. Type ♂ in Coll. Staudinger.

Sect. II. Hind wing with vein 6 from well below angle of cell.

A. Anal tuft, a streak behind eyes and spot at base of fore [illegible]
B. Anal tuft black.
  a. Head and thorax crimson above .... *argiades.*
  b. Head and thorax black.
    a¹. Abdomen without dorsal and lateral series of blue spots and white ventral spots.
      a². Palpi white below; both wings with the terminal band dentate below apex .... [illegible]
      b². Palpi black; both wings with the terminal band regular.
        a³. Legs mostly yellow .... *flavipes.*
        b³. Legs black .... *magon.*
    b¹. Abdomen with dorsal and lateral series of blue spots and white ventral spots .... *hadassa.*

791. Argyroeides eurypon.

Argyroeides eurypon, Druce, Biol. Centr.-Am., Het. i. p. 64, pl. 7. f. 3 (1884); Kirby, Cat. Het. p. 153.

♀. Head, thorax, and abdomen black; palpi in front, frons, shoulders, thorax at sides, and coxæ with white patches; a band behind the eyes bright orange; abdomen with the first four segments yellowish white at sides, the 3rd and 4th with ventral white band, the terminal segments slightly fringed with white; anal tufts orange; wings hyaline, the veins, and margins narrowly, black. Fore wing with orange spot at base of costa. Hind wing with slight apical black patch; the lobe on inner margin clothed with black hair.

Hab. Guatemala, Panajachel, 1 ♀ (*Champion*), type, Godman-Salvin Coll. *Exp.* 30 millim.

792. Argyroeides augiades. (Plate XIII. fig. 25.)

Trichura augiades, Druce, A. M. N. H. (6) xviii. p. 33 (1896).

♂. Head and thorax black, clothed above with crimson hair; palpi in front, points on frons, basal joint of antennæ, and patagia in front white; coxæ white; abdomen blue-black, with a pair of ventral white streaks on basal segments; wings hyaline, the veins and margins black. Fore wing with discoidal black bar; the costa more broadly black from end of cell to apex; the terminal band expanding at vein 2. Hind wing with the terminal band expanding towards apex; the lobe of inner margin black.

Hab. Bolivia (*Garlepp*), Chaco, 1 ♂ 1 ♀. *Exp.* 36 millim. Type † in Coll. Druce.

793. Argyroeides laurion.

Argyroeides laurion, Druce, Biol. Centr.-Am., Het. i. p. 64, pl. 8. f. 13 (1884); Kirby, Cat. Het. p. 153.

♂. Head, thorax, and abdomen black; palpi below, throat, and coxæ clothed with white hair; the 2nd and 3rd segments of abdomen yellowish at sides and below; anal tufts yellowish below; wings hyaline, the veins, and margins narrowly, black. Fore wing with slight crimson spot at base and some crimson scales below costa from before middle to apex; a black point on discocellulars; the terminal band dentate at vein 2, expanding between veins 5 and 6, dentate at vein 7, and with some crimson scales on it. Hind wing with black point on discocellulars; the terminal band expanding very slightly between veins 5 and 6; the lobe on inner margin very sparsely clothed with black hair.

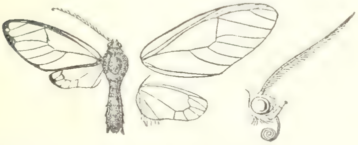

Fig. 170.—*Argyroeides laurion*, ♂. $\frac{1}{1}$.

Hab. Panama, Chiriqui, 1 ♂ (*Champion*), type, Godman-Salvin Coll. *Exp.* 32 millim.

794. Argyroeides flavipes, n. sp. (Plate XIII. fig. 5.)

♂. Black; antennæ yellowish at tips; the greater part of legs and the tarsi orange-yellow; abdomen with the constricted 2nd segment yellowish at sides and below, the terminal segments slightly fringed with yellow hair below; wings hyaline, the veins, and margins narrowly, black, the veins yellowish; hind wing with the lobe on inner margin very small and slightly fringed with black hair.

Hab. Brazil, Castro Paraña (*Jones*), 1 ♂ type. *Exp.* 26 millim.

795. Argyroeides magon. (Plate XIII. fig. 26.)

Argyroeides magon, Schaus, P. Z. S. 1892, p. 276.
Argyroeides gyas, Druce, A. M. N. H. (6) xviii. p. 32 (1896).

♂. Black; coxæ whitish; abdomen with the constricted 2nd segment yellowish above and below, the terminal segments slightly fringed with white hair ventrally. Fore wing yellow hyaline, the veins, and margins narrowly, black. Hind wing hyaline, the veins, and margins narrowly, black; the lobe small.

Hab. Brazil, Sta. Catharina, 2 ♂. *Exp.* 26 millim. Type + in Coll. Schaus. Type + *gyas* in Coll. Druce.

*796. Argyroeides hadassa. (Plate XIII. fig. 29.)

Trichura hadassa, Druce, P. Z. S. 1883, p. 379; Kirby, Cat. Het. p. 154.

♀. Head, thorax, and abdomen black; pectus and coxæ with patches of blue; abdomen with dorsal and lateral series of metallic blue spots, ventral surface with white patches on first two segments followed by paired spots, the 1st and 4th pairs large. Fore wing yellowish hyaline, the costal and inner areas tinged with orange; the veins and margins narrowly black, the terminal band expanding slightly towards apex and below vein 2. Hind wing hyaline, the veins and margins black; the terminal band expanding on apical area.

Hab. Ecuador, Intaj (*Buckley*). *Exp.* 44 millim. Type + in Coll. Druce.

Genus DIDASYS.

Type
Didasys, Grote, Can. Ent. vii. p. 174 (1875) . . . . *belæ*.

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and obtuse; antennæ bipectinate, with long branches, dilated at extremity and ending in a bristle, short in female; tibiæ with the spurs moderate; abdomen with large lateral tufts on 1st two segments, the claspers of male with very long tufts. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked, 7 given off nearer the apex than 9; 11 from cell. Hind wing with the cell very long; vein 3 from well before angle of cell; 4, 5 well separated at origin; 6 from slightly below upper angle.

797. Didasys belæ.

Didasys belæ, Grote, Can. Ent. vii. p. 175 (1875); Kirby, Cat. Het. p. 135.

♂. Head and tegulæ scarlet; palpi with the 3rd joint black; frons with white lateral points; antennæ black; thorax and legs black striped with white; some scarlet on sides of thorax; abdomen scarlet, with lateral black spots on 1st segment and dorsal series of small spots, the tufts on claspers black, ventrally whitish with black bands except the first two segments; wings hyaline the veins and margins black. Fore wing with scarlet patch at base a black-edged scarlet discocellular spot ; a broad terminal black band expanding towards costa and below vein 2, and with a subterminal series of scarlet spots on it. Hind wing with discocellular black spot ; a terminal black band expanding towards costa and dentate below vein 2 ; the inner area black except at base, with its cilia pale red.

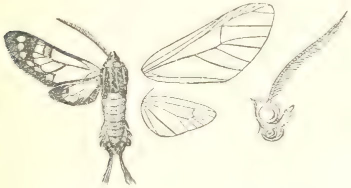

Fig. 171.—*Didasys belæ*, ♂. $\frac{1}{1}$.

♀. Abdomen with the dorsal black spots larger ; a complete series of ventral black bands with whitish between them on medial segments, the extremity black.

Hab. Florida, 2 ♂ 2 ♀, Grote Coll. *Exp.* 28–34 millim.

Genus GUNDLACHIA.

	Type.
Gundlachia, Herr.-Schäff. Corresp.-Blatt Regensb. xx. p. 108 (1866)	*cruenta.*
Burtia, Grote, Proc. Ent. Soc. Phil. vi. p. 185 (1867)	*rubella.*

Proboscis present ; palpi obliquely upturned, the 2nd joint reaching vertex of head, the 3rd porrect ; antennæ bipectinate, with moderate branches ; tibiæ with the spurs moderate ; abdomen with lateral tubercles on 1st segment ; lateral tufts on terminal segment ; the claspers of male very long and tufted with hair. Fore wing with vein 3 from well before angle of cell ; 4, 5 separate at origin ; 6 from upper angle ; 7, 8, 9, 10, 11 stalked ; 7 from towards apex but before 9. Hind wing with vein 2 from long before angle of cell, 3 from well before angle ; 4, 5 from angle ; 7 from well before upper angle.

A. Anal tufts crimson and black ; fore wing without subapical crimson patches	*cruenta.*
B. Anal tufts black ; fore wing with crimson subapical patches.	*rubella.*

*798. Gundlachia cruenta.

Gundlachia cruenta, Herr.-Schäff. Corresp.-Blatt Regensb. xx. p. 108 (1866) ; Kirby, Cat. Het. p. 151.

♂. Palpi black, white above and below ; frons black, white at sides ; antennæ black ; vertex of head and tegulæ crimson ; thorax brown, patagia edged with white ; pectus and legs crimson and white ; abdomen crimson, with ventral white fascia, the lower part of anal tufts and the tufts on claspers black ; wings hyaline, the veins, and margins narrowly, black. Fore wing with discoidal black bar, with crimson streak on costa above it ; the terminal band expanding towards apex. Hind wing with the terminal band expanding slightly towards apex.

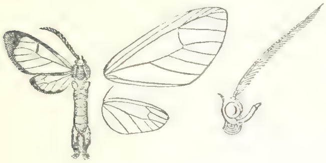

Fig. 172.
Gundlachia cruenta, ♂. $\frac{1}{1}$.

Hab. Cuba, 2 ♂, type † in Coll. Staudinger. *Exp.* 22 millim.

*799. Gundlachia rubella. (Plate XIII. fig. 9.)

Gundlachia cruenta, Herr.-Schäff. Corresp.-Blatt Regensb. xx. p. 108 (1866), ♀. Kirby, Cat. Het. p. 151.
Burtia rubella, Grote, Proc. Ent. Soc. Phil. vi. p. 186, pl. 5. f. 1 (1866).

♂. Palpi crimson, the 3rd joint fuscous, the 2nd and 3rd white in front; frons brown; vertex of head and tegulæ crimson; patagia and mesothorax brown with white streaks; abdomen crimson, with ventral white medial patch; anal tufts black; legs brownish streaked with white; pectus with crimson spots. Fore wing hyaline, the veins, and margins rather narrowly, brown; the base crimson; a brown discoidal band conjoined to costal fascia; the terminal band widening to apex and expanding widely at tornus; two prominent crimson subapical spots. Hind wing with the terminal band expanding towards apex; the inner area clothed with crimson scales.

♀ with the ventral surface of abdomen brown.

Hab. Cuba. *Exp.* 22 millim. Type + *cruenta* (♀) ♂ in Coll. Staudinger.

Genus HYPOCLADIA, nov.

Type, *H. militaris*.

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd moderate; antennæ bipectinate, the branches dilated and ending in a bristle; tibiæ with the spurs moderate. Fore wing rather narrow; vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from near angle; 3, 4 from angle; 5 from above angle; 6, 7 from upper angle.

800. Hypocladia militaris.

Hypocladia militaris, Butl. Ill. Het. i. p. 33, pl. 16. f. 1 (1877). Kirby, Cat. Het. p. 145.

♂. Head, thorax, and abdomen brown; two spots on vertex of head, on tegulæ and metathorax crimson; coxæ mostly whitish; abdomen with lateral crimson fasciæ decreasing and becoming maculate distally; ventral white bands to near extremity. Fore wing brown, with whitish streaks in and below cell, and a series of short streaks between veins 2 and 7, becoming shorter and maculate towards vein 7. Hind wing black-brown, with slight hyaline streaks in, below, and beyond cell.

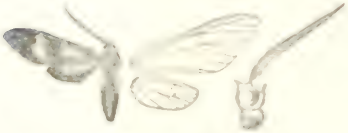
Fig. 173.
Hypocladia militaris, ♂. 1/1.

Hab. Amazons, 1 ♂ type. *Exp.* 28 millim.

Genus DESMIDOCNEMIS.

Type.
Desmidocnemis, Möschl. Stett. ent. Zeit. xxxiii. p. 346 (1872) ... *prittwitzi.*

Proboscis well developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs short. Fore wing broad; vein 3 from well before angle of cell; 5 from well above angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell; the inner margin below with short upturned hair. Hind wing short and narrow, the costa concave, the apex acute; the cell very long; vein 2 from long before angle; 3 and 4 absent; the discocellulars very short; 6, 7 on a long stalk.

A. Pectus with crimson patches in front.
  a. Abdomen blue-black, white below .... *thyria.*
  b. Abdomen with lateral orange spots, the ventral surface orange .... *hypochryseis.*
B. Pectus without crimson patches; abdomen black.
  a. Abdomen with lateral orange stripes .... *prittwitzi.*
  b. Abdomen black, white below .... *platyleuca.*

801. **Desmidocnemis thyria.** (Plate XIII. fig. 6.)

Desmidocnemis thyria, Druce, A. M. N. H. (7) i. p. 207 (1898).

♂. Head and thorax black; palpi in front and frons at sides with white points; pectus with crimson patches in front; coxæ white; abdomen blue-black, the ventral surface white except towards extremity. Fore wing yellowish hyaline, the veins, and margins narrowly, black; the inner margin and costa from end of cell to apex more broadly black. Hind wing hyaline, the veins, and margins narrowly, black; the costa clothed with white hair to end of cell, then rather broadly black.

Hab. Ecuador, Balsapamba, type † in Coll. Druce; Bolivia, Chaco (*Garlepp*), 1 ♂. *Exp.* 28 millim.

802. **Desmidocnemis hypochryseis,** n. sp. (Plate XIII. fig. 27.)

♂. Head, thorax, and abdomen black; palpi in front, frons, gulæ, patches on tegulæ and fringes to patagia orange; pectus with crimson patches in front; tarsi orange; abdomen with lateral series of orange spots and the ventral surface orange; wings hyaline, the veins, and margins narrowly, black. Fore wing with black fascia on inner margin and on costa towards apex; a discoidal point; the terminal band expanding slightly towards apex. Hind wing with the costa white; a subcostal black fascia narrowing to base; cilia orange; underside with orange fascia on medial part of costa.

Hab. Brazil, Casa Branca (*Garbe*), 1 ♂ type. *Exp.* 24 millim.

*803. **Desmidocnemis prittwitzi.**

Desmidocnemis prittwitzi, Möschl. Stett. ent. Zeit. xxxiii. p. 348 (1872); Kirby, Cat. Het. p. 148.

♂. Head, thorax, and abdomen black; antennæ with the basal joint white below; palpi white below; hind tibiæ yellowish; abdomen with lateral orange stripes traversed by a fine black lin from segment 3 to anal tuft; wings hyaline, the veins and margins narrowly black; fore wing with quadrate discoidal spot.

Hab. Cayenne. *Exp.* 21 millim. This species is unknown to me.

804. Desmidocnemis platyleuca.

Glaucopis platyleuca, Wlk. i. 198 (1854); Butl. Ill. Het. i. p. 35, pl. 13. f. 2; Kirby, Cat. Het. p. 148.

♂. Head, thorax, and abdomen black; frons edged with grey; antennæ white at tips; patagia slightly edged with yellowish; palpi, thorax, and abdomen white below; wings hyaline, the veins, and margins narrowly, black. Fore wing with the black on inner margin broadening slightly to base. Hind wing with the costa white, with a black fascia below it beyond end of cell.

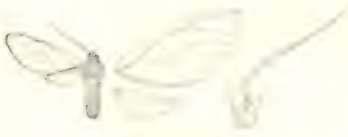

Fig. 174.
Desmidocnemis platyleuca ♂.

Hab. Venezuela, 1 ♂ type. *Exp.* 24 millim.

Genus DIPTILON.

Type.
Diptilon, Prittw. Stett. ent. Zeit. xxxi. p. 349 (1870) ... *telamonaphorum*.

Proboscis well developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd moderate; antennæ of male bipectinate, with moderate branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; abdomen with lateral tubercles to 1st segment. Fore wing with vein 3 from well before angle of cell; 5 from just below middle of discocellulars; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing very narrow, with the cell very long; vein 2 from before angle of cell; 3 and 5 separate at origin; 4 absent; 6, 7 from upper angle.

Sect. I. Hind wing very minute and distorted with a costal fold, and the inner area forming a long laminate folded process containing tufts of hair and separate almost from base.

A. Tarsi and veins of underside of fore wing orange-red. *telamonaphorum*.
B. Tarsi and veins of underside of fore wing brown ... *halterata*.

805. Diptilon telamonaphorum.

Diptilon telamonaphorum, Prittw. Stett. ent. Zeit. xxxi. p. 350, pl. 2. f. 2 *a–d* (1870); Kirby, Cat. Het. p. 148.

♂. Black-brown; gulæ crimson; coxæ white; tarsi and underside of hind tibiæ orange-red; abdomen with yellowish dorsal patches on 2nd, 3rd, and 4th segments, which are whitish below. Fore wing yellowish hyaline, the veins, and margins narrowly, black; a black discoidal spot; underside with the veins except towards apex and the discoidal spot orange-red.

Hab. Brazil, Minas Geraës 1 ♂, Rio Janeiro, 1 ♂ type † in Coll. Staudinger. *Exp.* 24 millim.

806. Diptilon halterata.

Zygæna halterata, Fabr. Syst. Ent. p. 555 (1775); Kirby, Cat. Het. p. 155.
Diptilon dieides, Prittw. Stett. ent. Zeit. xxxi. p. 350 (1870); Kirby, Cat. Het. p. 148.

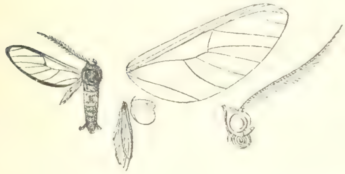

Fig. 175.—*Diptilon halterata* ♂. ¹⁄₁.

Black-brown; gulæ orange; coxæ white; tibiæ and tarsi brown and yellow; abdomen with segments 2, 3, 4 yellowish white; wings hyaline, the veins, and margins narrowly, black. Fore wing with discoidal point above origin of vein 5. Hind wing with the inner area black, with tufts of white hair.

Hab. Brazil: Casa Branca, 1 ♂; Rio Janeiro, type † *dieides* in Coll. Staudinger; Castro Paraña. *Exp.* 26 millim.

Sect. II. Hind wings normal.
  A. Fore wing with upturned hair on underside of inner margin.
    a. Abdomen with lateral spots and the ventral surface yellow.
      *a*¹. Fore wing with orange subcostal streak beyond middle .... *chrysocraspis*
      *b*¹. Fore wing without orange subcostal streak .... *doeri.*
    b. Abdomen with lateral spots and ventral bands white. *philocles.*

807. Diptilon chrysocraspis, n. sp. (Plate XIII. fig. 7.)

♂. Head, thorax, and abdomen black; tarsi orange; abdomen with some orange at sides and on ventral surface, sometimes forming complete bands on 2nd, 3rd, and 4th segments; wings hyaline, the veins, and margins narrowly, black. Fore wing with orange subcostal streak beyond middle, the inner margin fulvous except towards base; the terminal band expanding towards apex. Hind wing with the costa white; a subcostal black streak narrowing to base.

Hab. Bolivia, Chaco (*Garlepp*), 1 ♂ type. *Exp.* 28 millim.

808. Diptilon doeri.

Syntrichura doeri, Schaus, P. Z. S. 1892, p. 276; id. Am. Lep. pl. 1. f. 16.

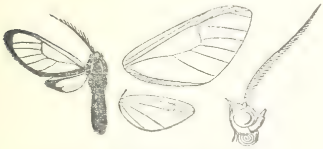

Fig. 176.—*Diptilon doeri*, ♂. ¹⁄₁.

♂. Head, thorax, and abdomen black; palpi in front and frons orange; tegulæ and patagia streaked with orange; prothorax with lateral crimson patches; coxæ and tarsi mostly orange; abdomen with lateral series of orange spots and the ventral surface orange; wings hyaline, the veins and margins black. Fore wing with black point at origin of vein 5; a black fascia on inner margin; the terminal band expanding slightly towards apex. Hind wing with white fascia on costa and black streak below it; the terminal band wide at costa, narrowing to above tornus, its inner edge waved; cilia orange.

Hab. Brazil, Theresopolis 1 ♂. *Exp.* 26 millim. Type † in Coll. Schaus.

809. Diptilon philocles.

Syntrichura philocles, Druce, A. M. N. H. (6) xviii. p. 34 (1896); id. Biol. Centr.-Am., Het. ii. p. 350, pl. 72. f. 9.

♀. Head, thorax, and abdomen black; frons with lateral white patches; pectus with crimson patches in front; abdomen with lateral series of white spots and ventral bands. Fore wing yellowish hyaline, the veins and margins black; a black discoidal band; the terminal band expanding from vein 5 to apex. Hind wing hyaline, the veins and margins black; the costal area white, with black fascia below it on median nervure; the terminal band dentate and narrowing from costa to below vein 2.

Hab. Panama, Chiriqui, 1 ♀ type † in Coll. Staudinger; Brazil, São Paulo, Casa Branca, 1 ♀. *Exp.* 28 millim.

B. Fore wing without upturned hair on inner margin below.

810. Diptilon bivittata.

Cosmosoma bivittata, Wlk. xxxi. 90 (1864); Kirby, Cat. Het. p. 148.

♂. Head, thorax, and abdomen black-brown; palpi, frons, and gulæ orange; patagia streaked with orange; abdomen with lateral and ventral orange fasciæ. Fore wing hyaline, the veins and margins black; orange streaks at base below costa and above inner margin; a discocellular black bar; the terminal band expanding towards costa. Hind wing orange, with black fascia from below middle of costa and median nervure to termen, on which are irregular black marks.

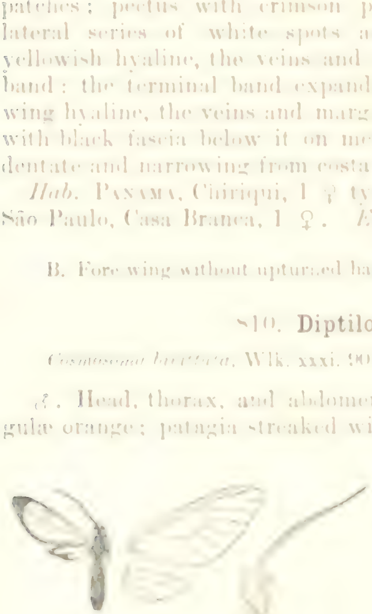

Fig. 177.—*Diptilon bivittata*, ♂. ½.

Hab. Brazil, 3 ♂, type. *Exp.* 26 millim.

Genus SYNTRICHURA.

	Type
Syntrichura, Butl. Journ. Linn. Soc., Zool. xii. p. 405 (1876)......	*virens.*

Proboscis well developed; palpi upturned, reaching vertex of head; antennæ with the shaft dilated at middle and clothed with rough hair above, bipectinate, with very short branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; abdomen with the 2nd and 3rd segments constricted. Fore wing with vein 2 from well before angle of cell; 4 absent; 5 from far above angle; 6 from upper angle; 7, 8, 9, 10 stalked, 7 being given off near apex at same point as 9; 11 from cell. Hind wing narrow, with the cell very long; vein 2 from well before angle; 4 absent; 3, 5 from angle; 6 from well below upper angle.

A. Prothorax with lateral crimson patches; abdomen without white on constricted segments .... *placida.*
B. Prothorax without crimson; abdomen with dorsal white streak and lateral and ventral patch on constricted segments ...... *virens.*

811. Syntrichura placida.

Syntrichura placida, Druce, Biol. Centr.-Am., Het. i. p. 66, pl. 7. f. 8 (1884); Kirby, Cat. Het. p. 154.

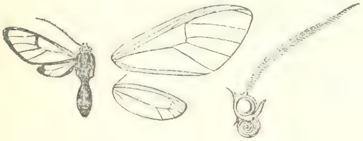

Fig. 178.—*Syntrichura placida*, ♂. 1/1.

♂. Head, thorax, and abdomen black; palpi whitish in front; frons with white points; vertex of head and tegulæ shot with metallic blue-green; prothorax with lateral crimson patches; wings hyaline, the veins, and margins narrowly, black. Fore wing with slender discoidal black bar conjoined to the costal fascia. Hind wing with small apical black patch.

Hab. Guatemala, Vera Paz, 1 ♂ (*Champion*), type, Godman-Salvin Coll. *Exp.* 22 millim.

812. Syntrichura virens.

Syntrichura virens, Butl. Journ. Linn. Soc., Zool. xii. p. 405 (1876); Kirby, Cat. Het. p. 154.

♀. Head, thorax, and abdomen black suffused with metallic blue-green; abdomen with dorsal white streak and lateral and ventral patch on the constricted segments; wings hyaline, the veins and margins black. Fore wing with discoidal black bar conjoined to costal fascia; the terminal band slightly expanding to costa. Hind wing with apical black patch.

Hab. Brazil, São Paulo, 1 ♀ type. *Exp.* 26 millim.

Subsp. 1. *reba*, Druce, A. M. N. H. (6) xviii. p. 33 (1896); Biol. Centr.-Am., Het. ii. p. 350, pl. 72. f. 7.

Pectus with crimson spots in front near neck.

Hab. Panama, Chiriqui; Colombia, Bogota. Type † in Coll. Staudinger.

Genus HEREA.

Type.
Herea, Wlk. i. 197 (1854).. *metaxanthus.*

Proboscis well developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with short branches dilated at extremity, the shaft dilated at middle; tibiæ with the spurs short; abdomen with lateral tubercles on 1st segment, the 2nd and 3rd segments constricted to a slender peduncle, then suddenly expanding. Fore wing with vein 3 from angle of cell; 4 absent; 5 from well above angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing narrow; vein 2 from well before angle of cell; 3 and 5 from angle; 4 absent; the discocellulars short; 6, 7 stalked almost to apex.

A. Tegulæ black.
  a. Terminal segments of abdomen orange-yellow .... *metaxanthus.*
  b. Abdomen black, the ventral surface orange .... *xanthogaster.*
B. Tegulæ orange-fulvous; abdomen black above .... *ruficeps.*

813. Herea metaxanthus.

Glaucopis metaxanthus, Wlk. i. 198 (1854) ; Butl. Ill. Het. i. p. 39, pl. 12. f. 7 ; Kirby, Cat. Het. p. 155.

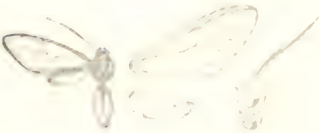

Fig. 179.
Herea metaxanthus, ♂.

♂. Head and thorax black ; abdomen with the first three segments black, the terminal segments orange-yellow, with dorsal black line, the anal tuft black, lateral black lines on penultimate segment ; wings hyaline, the veins, and margins narrowly, black ; the inner margin of fore wing and costa of hind wing rather broadly greyish black.

Hab. Amazons, Para (*Bates*), 1 ♂ type. *Exp.* 28 millim.

814. Herea xanthogaster. (Plate XIII. fig. 28.)

Herea xanthogaster, Druce, A. M. N. H. (7) i. p. 404 (1898).

♂. Head, thorax, and abdomen black ; palpi whitish in front ; abdomen with orange lateral streaks, and the ventral surface orange ; the anal tuft white below at middle ; wings hyaline, the veins, and margins narrowly, black.

Hab. Cayenne, 1 ♂ type † in Mus. Oxon. ; Bolivia, Puerto S. Rosa, 1 ♂. *Exp.* 24 millim.

815. Herea ruficeps.

Glaucopis ruficeps, Wlk. i. 198 (1854) ; Butl. Ill. Het. i. p. 39, pl. 13. f. 4 ; Kirby, Cat. Het. p. 155.
Cercophora [illegible], Herr.-Schäff. Aussereur. Schmett. f. 422 (1856).

♂. Head, thorax, and abdomen black ; antennæ at tips and upper part of frons white ; back of head and tegulæ orange-fulvous ; basal segments of abdomen white below ; wings hyaline, the veins and margins black. Fore wing with the inner margin rather broadly black ; a narrow discocellular band sometimes present.

♀ with the discocellular band more developed.

Hab. Amazons, Para, Tapajos (*Bates*), 2 ♂, 2 ♀ types. *Exp.*, ♂ 26, ♀ 28 millim.

Genus EUMENOGASTER.

Type.
Eumenogaster, Herr.-Schaff. Aussereur. Schmett. i. pp. 22, 23 (1854). *eumenes.*

Proboscis well developed ; palpi upturned and reaching vertex of head ; the 1st joint clothed with long hair ; antennæ bipectinate, with moderate branches ; thorax clothed with rough hair ; tibiæ clothed with rough hair, hind tibiæ fringed with rough hair, the spurs moderate ; abdomen long, the 1st segment with lateral tubercles, the 3rd segment constricted to a slender peduncle ; the terminal segments with large lateral tufts of hair. Fore wing with vein 3 from before angle of cell ; 4, 5 from angle ; 6 from upper angle ; 7, 8, 9, 10 stalked ; 11 from cell. Hind wing with vein 2 from long before angle of cell ; 3 from angle ; 4 absent ; 5 from well above angle ; 6, 7 from upper angle.

A. Abdomen with the terminal segments dark red	*notabilis.*
B. Abdomen fulvous; antennæ with the shaft scarlet	*pseudosphecia.*
C. Abdomen with the terminal segments black.	
a. Antennæ with the shaft scarlet above except at base .	*hæmacera.*
b. Antennæ with the shaft black, whitish at tip	*eumenes.*

816. Eumenogaster notabilis.

Pseudospex notabilis, Wlk. xxxi. 94 (1864); Kirby, Cat. Het. p. 153.

♂. Head brown; palpi white in front; some white on frons and behind the eyes, and some grey hairs on vertex; thorax clothed with brown and yellow hair; hind tibiæ fringed with scarlet hair; abdomen with the first three segments black-brown, the 1st with slight dorsal yellow tufts, the 2nd with two yellowish-white spots, the 3rd yellowish white in front; the terminal segments dark red, becoming brown at extremity, the 4th segment with whitish line in front; wings yellowish hyaline, the veins and margins brown. Fore wing with slight scarlet subcostal streak; some yellow scales below base of cell; the area between discocellulars and apex clouded by being sparsely irrorated with black and crimson scales; the brown bands on inner margin and termen rather broad.

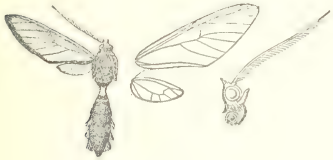

Fig. 180.
Eumenogaster notabilis, ♂. 1/1.

Hab. Amazons, Tapajos (*Bates*), 1 ♂ type. *Exp.* 30 millim.

817. Eumenogaster pseudosphecia, n. sp. (Plate XIII. fig. 22.)

Head and thorax blackish; antennæ with the shaft scarlet; frons white; palpi, basal joints of antennæ and tufts between their bases, edges of tegulæ and patagia, patches on meso- and metathorax, pectus and legs yellow; abdomen fulvous, with whitish band at base of 3rd segment; wings hyaline, the veins, and margins narrowly, brown. Fore wing with the costal area clouded with brown to the median nervure, a reddish streak on inner area.

Hab. Amazons, Tonantins, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 30 millim.

818. Eumenogaster hæmacera, n. sp. (Plate XIII. fig. 1.)

♂. Head, thorax, and abdomen black; antennæ with the shaft scarlet above except towards base; fore coxæ pure white; abdomen with lateral white and yellow streaks on first three segments, the 2nd and basal half of 3rd segment ventrally white; wings hyaline, the veins, and margins narrowly, brownish; the costal half of both wings with the membrane orange-hyaline.

Hab. Cayenne (*Bouchard*), 1 ♂ type; co-types in Mus. Oxon. *Exp.* 34 millim.

*819. Eumenogaster eumenes.

Eumenogaster eumenes, Herr.-Schäff. Aussereur. Schmett. f. 423 (1856); Kirby, Cat. Het. p. 153.

Head, thorax, and abdomen black; antennæ whitish at tips; abdomen with lateral white streaks on first three segments; wings hyaline, the costal half yellowish hyaline; the veins and margins narrowly black.

Hab. BRAZIL. *Exp.* 34 millim. This species is unknown to me.

Genus UROLASIA, nov.

Type, *U. brodea*.

Proboscis present; palpi upturned, reaching vertex of head; antennæ of male bipectinate with moderate branches, of female with the medial part of shaft dilated and fringed with scales above; tibiæ with the spurs short; abdomen with the 2nd and 3rd segments slightly constricted, the terminal segments with lateral tufts, anal tufts large. Fore wing with vein 3 from well before angle of cell; 5 from well above angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from towards angle of cell; 3 and 5 from angle; 4 absent; 6, 7 from upper angle.

A. Abdomen with opalescent bands on constricted segments. *opalocincta*.
B. Abdomen with dorsal blue bands .... *brodea*.

*820. Urolasia opalocincta. (Plate XII. fig. 15.)

Urolasia opalocincta, Druce, A. M. N. H. (7) i. p. 404 (1898).

♂. Head, thorax, and abdomen black; frons, gulæ, patches on tegulæ, patagia, coxæ, and back of pectus metallic blue; abdomen with lateral opalescent bands on constricted segments, almost meeting on dorsum, and silvery white ventral fascia; sublateral silvery spots on 5th and 6th segments. Fore wing hyaline, the veins, and margins rather broadly, black; a blue point at base; a discoidal black bar conjoined to costa, the terminal band expanding widely at tornus, black streaks in interspaces of terminal area. Hind wing hyaline, the veins black; a terminal band wide at costa, narrowing to a point before tornus.

Hab. CAYENNE, 1 ♂, 1 ♀ type † in Mus. Oxon. *Exp.* 40 millim.

*821. Urolasia brodea.

Syntrichura brodea, Schaus, J. N. York Ent. Soc. iv. p. 132 (1896).

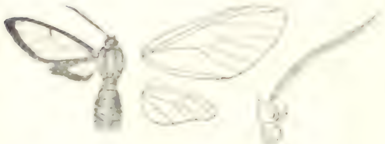

Fig. 181.—*Urolasia brodea*, ♂. 1/1.

♂. Black; palpi with white marks in front; frons with lateral white stripes; gulæ, spots on shoulders, and coxæ white; thorax and legs with patches of metallic blue; abdomen with blue bands above, the ventral surface with broad white stripe on basal half. Fore wing hyaline, the veins, and margins rather widely, black; a blue point at base; a discoidal black bar. Hind wing with large hyaline patch below the cell; the costal and terminal areas broadly black. Underside with some white on retinaculum; hind wing with white fascia in cell.

Hab. Trinidad. *Exp.* 30 millim. Type in Coll. Schaus.

Genus **SESIURA**, nov.

Type, *S. smaragdina.*

Proboscis well developed; palpi upturned, reaching just above vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs short; abdomen somewhat constricted at 5th and 6th segments, then expanding again, the terminal segments with lateral tufts and the anal segment with thick fringe of hair all round. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell about two-thirds of wing; vein 2 from well before angle; 3 from angle; 4 absent; 5 from above angle; 6, 7 from upper angle.

822. Sesiura smaragdina.

Eunomia smaragdina, Wlk. xxxi. 92 (1864); Kirby, Cat. Het. p. 152.
Æthria saturatissima, Wlk. xxxi. 93.

♂. Head and thorax black shot with blue; palpi white in front; a line behind eyes and spots on tegulæ and patagia white; coxæ and spots on end of mid and hind tibiæ white; abdomen almost completely shot with brilliant metallic blue; a dorsal white point at base; the fringe on anal segment crimson; paired series of ventral white spots except on last two segments; wings hyaline, the veins, and margins rather broadly, black. Fore wing with white point at base; a black discocellular bar; the terminal band expanding towards apex. Hind wing with the terminal band expanding and dentate towards tornus.

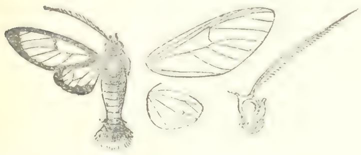

Fig. 182.—*Sesiura smaragdina*, ♂. $\frac{1}{1}$.

Ab. 1. Abdomen with the anal tufts orange.—Cayenne, Coll. Staudinger.

Hab. Cayenne; Amazons, Ega (*Bates*), 1 ♂, type of both Walker's descriptions. *Exp.* 32 millim.

Genus **METASTATIA.**

Type.
Metastatia, Butl. Cist. Ent. ii. p. 115 (1876) .... *pyrrhorhæa.*

Proboscis fully developed; palpi upturned, reaching above vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs short; hind tibiæ dilated; abdomen with the 2nd segment somewhat constricted, the anal segment with lateral tufts. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell about two-thirds of wing; vein 2 from long before angle; 4 absent; 5 from above angle; 6, 7 from upper angle.

823. Metastatia pyrrhorhæa.

Hyelosia pyrrhorhæa, Hubn. Zutr. ex. Schmett. i. p. 12, ff. 43, 44 (1827); Kirby, Cat. Het. p. 180.

♂. Black: palpi in front, sides of frons, head behind eyes and a spot on vertex, spots on shoulders and prothorax, and fringe of patagia, coxæ, and streaks on femora white; abdomen tinged with blue; dorsal and lateral maculate white lines: anal tufts crimson; a ventral series of white bands; wings slightly shot with blue. Fore wing with a white point at base; a triangular hyaline patch in and below cell and between veins 2 and 3; an oblique band beyond the cell from just below costa to vein 5 near termen; cilia white at apex. Hind wing hyaline, with the veins, the upper part of cell, and the rather irregular terminal area black; cilia white at tornus.

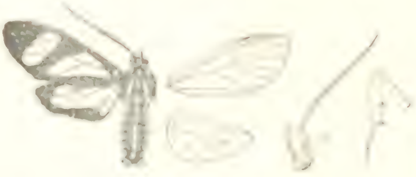

Fig. 183.—*Metastatia pyrrhorhæa*, ♂. $\frac{1}{1}$.

Hab. Br. Guiana; Amazons, Para, 2 ♂. *Exp.* 38 millim.

Genus CHRYSOSTOLA.

Type.

Chrysostola, Herr.-Schaff. Aussereur. Schmett. p. 22 (1854)......... *mellina*.

Proboscis well developed; palpi upturned, reaching just above vertex of head, the first joint fringed with long hair; antennæ of male bipectinate, of female typically thickened by appressed serrations on each side of medial part; tibiæ with the spurs short; abdomen with the 2nd segment strongly constricted. Fore wing with vein 3 from well before angle of cell; 4, 5 separate at origin; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from angle; 4 absent; 5 from above angle; 6, 7 from upper angle.

A. Wings with the veins of basal half bright orange; thorax orange.
  a. Abdomen with the first four segments orange.
    a^1. Fore wing with discoidal orange patch.................. *faveria*.
    b^1. Fore wing with discoidal black spot .... *dycladioides*.
  b. Abdomen with the first two segments orange .... *humilis*.
B. Wings with the veins of medial area orange; thorax and base of wings black.. *augusta*.
C. Fore wing with the veins of basal half dull yellowish or blackish.
  a. Abdomen wholly black above .... *sanguitarsia*.
  b. Abdomen black and yellow, or wholly yellow.
    a^1. Abdomen with the terminal segments blackish above.
      a^2. Abdomen with some blue-grey suffusion on terminal segments above.
        a^3. Both wings with small apical black patches ... *postica*.

- b^3. Fore wing with large black patches at apex and tornus, hind wing without patches .... *pelopia.*
- b^2. Abdomen without blue-grey suffusion on terminal segments.
  - a^3. Abdomen with four orange bands on terminal segments .... *tetrazona.*
  - b^3. Abdomen without orange bands on terminal segments.
    - a^4. Fore wing with large apical black patch, and smaller patch at tornus.
      - a^5. Abdomen with the terminal segments greenish black.................................. *sanguiceps.*
      - b^5. Abdomen with the terminal segments fulvous orange .... *singularis.*
    - b^4. Fore wing without black patches at apex and tornus .... *consobrina.*
- b^1. Abdomen with dorsal black line and segmental bands.
  - a^2. Head crimson behind; fore wing with apical black patch .... *mellina.*
  - b^2. Head orange behind; fore wing without apical black patch... *munda.*
- c^1. Abdomen with dorsal whitish spots, a black line on first four segments, and segmental lines on 3rd and 4th segments .... *fulvisphex.*
- d^1. Abdomen wholly fulvous yellow.
  - a^2. Fore wing with discocellular orange spot; patagia streaked with black .... *æqualis.*
  - b^2. Fore wing without discocellular spot; patagia edged with black .... *zethus.*
- e^1. Abdomen black, with crimson anal tuft .... *moza.*

*824. Chrysostola faveria.

Argyroeides faveria, Druce, A. M. N. H. (6) xviii. p. 32 (1896); id. Biol. Centr.-Am., Het. ii. p. 349, pl. 72. fig. 5.

♀. Head black; thorax and first four segments of abdomen orange, the terminal segments black irrorated with blue scales; tibiæ and tarsi striped black and whitish; wings hyaline. Fore wing with the veins and margins of basal half orange; an orange discal spot; the veins of outer area black; diffused black patches at apex and tornus. Hind wing with the veins orange to beyond cell; the veins of outer area, costa towards apex, termen and inner margin black.

Hab. PANAMA, Chiriqui. *Exp.* 28 millim. Type † in Coll. Staudinger.

*825. Chrysostola dycladioides. (Plate XIII. fig. 18.)

Hæmaterion dycladioides, Heyl. C.R. Soc. Ent. Belge, xxxiv. p. xiv (1889); Kirby, Cat. Het. p. 151.

Head black; thorax orange-yellow; fore and mid legs with the coxæ and femora orange, tibiæ greyish, tarsi black; hind legs with the tibiæ black, the tarsi dull yellow and black; abdomen with the first four segments and part of 5th orange, the terminal segments black, with the anal tuft leaden blue; wings hyaline, with the veins partly and margins black. Fore wing with the costal nervure, part of subcostal, median, vein 1, and base of vein 2 yellow; a discoidal black patch, the tornus black. Hind wing with the costal nervure, subcostal, median, vein 1, and bases of nervules orange; black patches on discocellulars and at tornus.

Hab. Brazil, São Paulo. *Exp.* 24–26 millim.

*826. Chrysostola humilis.

Chrysostola humilis, Herr.-Schäff. Aussereur. Schmett. f. 264 (1854).

♂. Head and tegulæ black; thorax orange; tibiæ whitish with black streak; abdomen with the first two and base of 3rd segment orange; the others black, with fine blue segmental lines towards extremity; wings hyaline. Fore wing with the veins and margins to end of cell bright orange, of terminal area black, the terminal band expanding towards apex. Hind wing with the veins and margins orange; a black apical patch.

Hab. Brazil. *Exp.* 28 millim. In Mus. Oxon.

827. Chrysostola augusta.

Dycladia augusta, Druce, Biol. Centr.-Am., Het. i. p. 62, pl. 7. f. 19 (1884); Kirby, Cat. Het. p. 144.

Head black, a leaden blue patch on vertex; tegulæ black and blue; thorax black, with base of patagia yellow; legs yellow, the tarsi, fore tibiæ, and the tibial joints black; (abdomen wanting); wings hyaline. Fore wing with the base black, extending outwards along costa and inner margin; the margins and veins of medial area yellow; a discocellular black patch; the veins of outer area black; the terminal band wide on apical area. Hind wing with the veins and margins of basal area black, of outer area yellow; a terminal black band narrowing from apex to vein 2.

Hab. Guatemala (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 26 millim.

828. **Chrysostola sanguitarsia**, n. sp. (Plate XIII. fig. 10.)

♂. Head, thorax, and abdomen black; palpi, sides of frons, and basal joint of antennæ with some orange scales; shaft of antennæ above and branches tinged with blood-red; tarsi blood-red; thorax above with some orange hairs; abdomen with the constricted 2nd segment yellowish white at sides and below, the next two segments with whitish ventral bands; wings hyaline, the veins, and margins narrowly, black. Fore wing with the costal nervure and veins near end of cell reddish fulvous; an oblique suffused area of reddish scales from origin of vein 2 to costa, along which it extends to near apex. Hind wing with the veins at upper angle of cell crimson; some diffused reddish scales between cell and apex; some blackish on termen between veins 5 and 6.

Hab. Bolivia, Songo (*Garlepp*), 1 ♂ type. *Exp.* 28 millim.

829. **Chrysostola postica.** (Plate XIII. fig. 19.)

Glaucopis postica, Wlk. i. 178 (1854); Kirby, Cat. Het. p. 155.

♂. Head black, palpi orange at base; thorax orange suffused with fuscous on vertex, the patagia fringed with fuscous; legs banded with black; abdomen orange, the first segments blue-black on dorsum, the terminal segments black suffused dorsally with blue-grey; wings hyaline, the veins, and margins narrowly, black. Fore wing with some black at base and on discocellulars; both wings with small black apical patches.

Hab. Amazons, Santarem, 1 ♂ (*Bates*), type. *Exp.* 24 millim.

830. **Chrysostola pelopia.** (Plate XIII. fig. 20.)

Dycladia pelopia, Druce, A. M. N. H. (6) xx. p. 303 (1897).

♂. Head and thorax black; vertex of head, tegulæ, and mesothorax with patches of silvery blue; tegulæ in front, patagia at extremities, and metathorax orange; pectus and legs orange, the ends of tibiæ and tarsi black; abdomen orange, the terminal segments black with some silvery blue on them; wings hyaline, slightly clouded with brown towards termen; the veins, and margins narrowly, black. Fore wing with well-developed black patches at apex and tornus.

Hab. Panama, Chiriqui (*Trötsch*), type† in Coll. Druce; Bolivia, Puerto S. Rosa, 1 ♂. *Exp.* 26 millim.

831. **Chrysostola tetrazona**, n. sp. (Plate XIII. fig. 17.)

♂. Head, thorax, and abdomen black; palpi orange, black at tips; frons with lateral orange patches; vertex of head with orange patch; tegulæ, patagia, and pectus with orange scales; coxæ and patches on femora and tarsi orange; abdomen with orange subdorsal patches on 1st segment, the constricted 2nd segment pale yellow, the following four segments with orange bands, ventral surface with orange spots on subterminal and patch on terminal segment; wings hyaline, the veins, and margins narrowly, black; hind wing with orange patch on inner area.

♀. Wings yellow hyaline, the veins on underside orange; fore wing with discoidal band of orange and black scales, a diffused fuscous patch on termen below apex.

Hab. Bolivia, Songo (*Garlepp*), 1 ♂ type; Amazons, Pebas, Islanaos, 1 ♀. *Exp.*, ♂ 26, ♀ 32 millim.

Subsp. ♀. Abdomen with the orange bands beyond the constricted segment almost obsolete; fore wing without the discoidal band.

Hab. Brazil, Minas Geraës, 2 ♀. *Exp.* 26 millim.

*832. **Chrysostola sanguiceps.** (Plate XIII. fig. 12.)

Chrysostola sanguiceps, Druce, A. M. N. H. (7) i. p. 405 (1898).

♂. Palpi and frons orange; vertex of head and a bar above frons crimson; antennæ and back of head black; thorax black; tegulæ with orange spots; patagia and mesothorax with orange stripes; pectus and legs orange; fore coxæ with blue patches; mid tarsi streaked with black; abdomen with the first two segments orange, the terminal segments blackish above with orange lateral patches on 3rd, 4th, and 5th segments. Fore wing hyaline, the veins and margins black; orange streaks below costa and above vein 1; the terminal band expanding very widely on apical area and at tornus. Hind wing hyaline, the veins orange; the terminal band expanding widely on apical area.

Hab. Cayenne, 1 ♂ type† in Mus. Oxon. *Exp.* 26 millim.

833. **Chrysostola singularis.** (Plate XIII. fig. 21.)

Glaucopis singularis, Wlk. i. 182 (1854). Kirby, Cat. Het. p. 155.

♀. Head and front half of thorax above black; the rest of thorax and abdomen fulvous yellow, the latter blackish above towards extremity; the wings hyaline, the veins, and margins narrowly, fulvous tinged with black. Fore wing with apical black patch extending down to vein 2, and smaller patch at tornus. Hind wing with a little black on termen towards apex.

Hab. Amazons, Para, 1 ♀ (*Bates*), type. *Exp.* 28 millim.

834. **Chrysostola consobrina.** (Plate XIII. fig. 11.)

Pseudosphex consobrina, Wlk. vii. 1619 (1856); Kirby, Cat. Het. p. 155.

♂. Head, thorax, and abdomen fulvous yellow; antennæ brownish; vertex of head and tegulæ banded with black; patagia edged with black; vertex of thorax striped with black; abdomen with slight black streaks on 1st segment, the terminal segments purplish fuscous; wings hyaline, the veins, and margins narrowly, black. Fore wing with slight fulvous streak on costa.

Hab. Amazons, Tapajos, 1 ♂ (*Bates*). *Exp.* 26 millim. Type† in Mus. Oxon.

*835. **Chrysostola mellina.**

Chrysostola mellina, Herr.-Schaff. Aussereur. Schmett. f. 427 (1855); Kirby, Cat. Het. p. 155.

Head, thorax, and abdomen yellow; head crimson behind with two white points; antennæ black; thorax with dorsal black patch; patagia edged with black; abdomen with black points on lateral tubercles, segmental and dorsal lines, the latter expanding into a patch on terminal segment; wings hyaline, the veins, and margins narrowly, black. Fore wing with yellow streaks below costa and above base of inner margin; the terminal band expanding widely on apical area. Hind wing with the terminal band expanding slightly towards apex.

Hab. Brazil, Cameta. *Exp.* 24 millim. This species is unknown to me.

836. **Chrysostola munda.** (Plate XIII. fig. 16.)

Isanthrene munda, Wlk. vii. 1605 (1856); Kirby, Cat. Het. p. 155.

♀. Head, thorax, and abdomen orange-yellow; antennæ blackish;

thorax and abdomen with dorsal black stripe; tegulæ and patagia edged with black; metathorax and each segment of abdomen banded with black; wings hyaline, the veins, and margins narrowly, black. Fore wing with slight orange streaks below basal part of costa and above base of inner margin.

Antennæ serrate but not thickened at middle.

Hab. AMAZONS, Santarem, 1 ♀ (*Bates*), type. *Exp.* 24 millim.

*837. **Chrysostola fulvisphex.** (Plate XIII. fig. 13.)

Chrysostola fulvisphex, Druce, A. M. N. H. (7) i. p. 404 (1898).

♂. Head and thorax yellow and orange; antennæ and a band on vertex of head black; tegulæ banded with black; patagia and thorax striped with black; abdomen bright orange, the base yellow; black spots on lateral tubercles; a dorsal series of leaden white spots placed on a black line on first four segments, the 3rd and 4th segments with segmental black dorsal lines, the medial segments with lateral black points; wings hyaline, the veins, and margins narrowly, black. Fore wing with orange spot at base, and streaks below costa and above inner margin.

Hab. CAYENNE, 1 ♂ type † in Mus. Oxon. *Exp.* 30 millim.

838. **Chrysostola æqualis.** (Plate XIII. fig. 14.)

Isanthrene æqualis, Wlk. xxxi. 87 (1864); Kirby, Cat. Het. p. 155.

Head, thorax, and abdomen fulvous yellow; antennæ black at base; tegulæ and metathorax banded with black; patagia and vertex of thorax striped with black; wings hyaline, the veins, and margins narrowly, black. Fore wing with fulvous streaks below costa and above inner margin, and fulvous discocellular patch; cilia brownish.

Hab. AMAZONS, Ega, 1 ♂ (*Bates*), type. *Exp.* 32 millim.

839. **Chrysostola zethus.**

Pseudosphex zethus, Hübn. Zutr. ex. Schmett. i. p. 13, ff. 49, 50 (1827); Kirby, Cat. Het. p. 155.

Head, thorax, and abdomen yellow and fulvous yellow; antennæ blackish towards base; palpi, vertex of head, and thorax banded with black; tegulæ and patagia outlined with black; wings hyaline, the veins, and margins narrowly, black. Fore wing with slight fulvous streaks below costa and on inner margin; the cilia brownish.

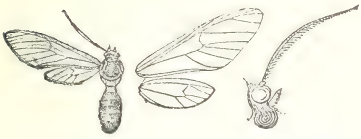

Fig. 184.—*Chrysostola zethus*, ♂. 1/1.

Hab. AMAZONS, Para, 1 ♂, Santarem, 1 ♀ (*Bates*). *Exp.* 30 millim.

840. Chrysostola moza.

Argyroeides moza, Druce, A. M. N. H. (6) xviii. p. 32 (1896); Biol. Centr.-Am., Het. ii. p. 349, pl. 72. f. 4.

♂. Head, thorax, and abdomen black; sides of frons, points on shoulders, metathorax, mid and hind coxæ, and first joint of tarsi white; abdomen with the constricted 2nd segment white at sides and below, the anal tuft crimson; wings yellow hyaline, the veins and margins black. Fore wing with subcostal crimson stripe; a black discoidal bar; the terminal band expanding somewhat at middle. Hind wing with the terminal band expanding slightly towards apex.

Hab. PANAMA, Chiriqui, 1 ♂. *Exp.* 32 millim. Type in Coll. Standinger.

Genus ECDEMUS.

Type.

Ecdemus, Herr.-Schäff. Aussereur. Schmett. i. pp. 22, 23 (1854). *hypoleucus.*

Proboscis well developed; palpi upturned, hardly reaching vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs moderate. Fore wing with the angle of cell produced upwards, the discocellulars short; veins 2, 3, 4 at long intervals before angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 2, 3, 4 at long intervals; 5 from angle; the discocellulars short; veins 6, 7 stalked almost to apex.

841. Ecdemus hypoleucus.

Ecdemus hypoleucus, Herr.-Schäff. Aussereur. Schmett. f. 420 (1854); Kirby, Cat. Het. p. 139.

♂. Head, thorax, and abdomen brown; palpi whitish below; coxæ and spots at end of mid and hind tibiæ white; abdomen white below to 5th segment. Fore wing hyaline, the veins, and margins rather broadly, brown; the area between vein 5 and costa brown. Hind wing hyaline, the veins and margins brown; terminal band dentate towards tornus.

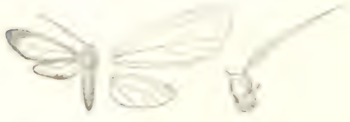

Fig. 185.—*Ecdemus hypoleucus*, ♂, 1/1.

Hab. BRAZIL, Cameta; Amazons, Rio Jutahi (*Trail*), 1 ♂. *Exp.* 24 millim.

Genus AGUNAIX.

Type, *A. lacrimans.*

Proboscis well developed; palpi upturned, hardly reaching vertex of head, the 1st joint fringed with long hair; antennæ bipectinate, with moderate branches; tibiæ with the spurs moderate. Fore wing narrow, the costa arched, the apex rounded; vein 3 from well before angle of cell; 4, 5 from angle; 6 from well below upper angle; 8, 9, 10, 11 from 7 at intervals. Hind wing with vein 2 from close to angle of cell; 3, 4 from angle; 6 from well above angle; 6, 7 stalked; the termen excised towards tornus.

*842. Agunaix lacrimans.

Agunaix lacrumans, Schaus, J. N. Y. Ent. Soc. vi. p. 139 (1898).

Head, thorax, and abdomen deep black; palpi at sides and lines behind eyes white; neck and legs with some whitish scales; wings semihyaline, the veins, and margins narrowly, black. Fore wing clouded with black to middle.

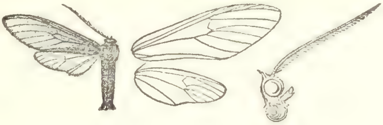

Fig. 186.—*Agunaix lacrimans*, ♂. $\frac{1}{1}$.

Hab. Peru, type † in Coll. Schaus; Bolivia, San Antonio, 1 ♂. *Exp.* 28 millim.

Genus CERCOPIMORPHA.

Type.
Cercopimorpha, Butl. Journ. Linn. Soc., Zool. xii. p. 424 (1876). *homopteridea.*

Proboscis fully developed; palpi upturned to vertex of head, the 3rd joint moderate and obtuse; antennæ bipectinate; tibiæ with the spurs rather long; abdomen with some rough hair on dorsum at base. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked, 11 from cell. Hind wing with vein 2 from well before angle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 stalked.

A. Hind wing black, with hyaline markings.
  a. Abdomen blue; fore wing with orange spot in end of cell. *tetragonia.*
  b. Abdomen red; fore wing without orange spot .... *homopteridia.*
B. Hind wing crimson, with terminal black band.................. *meterythra.*

843. Cercopimorpha tetragonia, n. sp. (Plate XIV. fig. 21.)

♂. Head and thorax black-brown; palpi in front and frons white; neck and pectus in front crimson; patagia striped with orange; legs white and black; abdomen brilliant blue above, white below, the anal tuft black; wings black-brown. Fore wing with slight orange streak below basal part of costa; a quadrate orange spot in end of cell. Hind wing with hyaline streak in lower end of cell; a fascia below the cell and spot above base of vein 2. Underside suffused with white and brilliant blue below basal part of costa and median nervure of fore wing, and on costal and inner areas and in cell of hind wing.

Hab. Venezuela, Merida (*Hahnel*), 1 ♂ type. *Exp.* 36 millim.

844. Cercopimorpha homopteridea.

Euchromia pectinata, Wlk. i. 254 (1854), nec Fabr.
Cercopimorpha homopteridea, Butl. Journ. Linn. Soc., Zool. xii. p. 424 (1876); Kirby, Cat. Het. p. 172.

♂. Black-brown; palpi with the extremities of 2nd and 3rd joints white; vertex of head, tegulæ, and patagia streaked with grey; neck orange-red; abdomen orange-red, except the 1st segment and anal tuft. Fore wing with slight white streaks below base of costa and median nervure; a diffused subapical greyish patch and indistinct dentate submarginal whitish line. Hind wing fuscous, with hyaline streaks in, below, and beyond lower angle of cell.

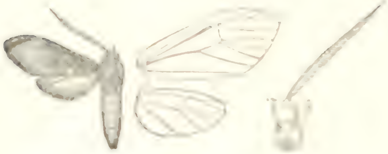

Fig. 187.
Cercopimorpha homopterodea, ♂. 1/1.

Hab. Amazons, Para (*Bates*), 2 ♂ type. *Exp.* 30 millim.

845. **Cercopimorpha meterythra**, n. sp. (Plate XIV. fig. 1.)

♂. Head, thorax, and abdomen black; neck crimson; palpi in front and legs streaked with white; abdomen with slight subdorsal blue marks, the ventral surface white. Fore wing black-brown irrorated with ochreous; hyaline spots in end of cell and above and below vein 4. Hind wing crimson, with terminal black band expanding at apex and below vein 2.

Hab. Bolivia, Corvico, 6000 feet (*Garlepp*), 1 ♂ type. *Exp.* 30 millim.

Genus TEUCER.

	Type.
Telioneura, Feld. Reis. Nov., Lep. iv. pl. 102. f. 31 (1874), nec Rond. Dipt. 1858 …	*glaucopis.*
Teucer, Kirby, Cat. Het. p. 165 (1892) …… ………… ………	*glaucopis.*

Proboscis fully developed; palpi upturned, reaching just above vertex of head; antennæ of male bipectinate, with very short branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate. Fore wing with vein 3 from near angle of cell; 4, 5 from angle or shortly stalked; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 3 from near angle; 5 from well above angle; 6, 7 shortly stalked; 8 rudimentary and not reaching the costa, or absent.

Sect. I. Hind wing of male with the inner area forming a large fold without tuft of hair; the tornus lobed; the area between vein 1 and cell on underside clothed with rough scales.

A. Abdomen with the terminal segments crimson …………… *subplena.*
B. Abdomen with the terminal segments black.
  a. Back of head with paired orange spots ….. ……………… *brevipennis.*
  b. Back of head without orange spots………………………… *albapex.*

846. **Teucer subplena.** (Plate XIV. fig. 2.)

Euchromia subplena, Wlk. i. 266 (1854); Kirby, Cat. Het. p. 165.

♂. Head, thorax, and abdomen black-brown; back of head with two crimson spots; coxæ and stripes on legs white; abdomen with the last two and part of the 3rd segment crimson, the anal tuft ochreous; the ventral surface white to near extremity. Fore wing greyish, the veins olive-grey; the base and inner area black; black spots in middle and end of cell, and a series just beyond it bent inwards below it; a curved subterminal series of spots bent inwards below vein 2; a terminal series of spots. Hind wing black, with hyaline streaks in and below cell; the fold of inner area with yellowish-white patch above, white below; the rough scales on underside mixed with white.

Hab. Brazil, Rio Janeiro, 1 ♂ type. *Exp.* 30 millim.

847. Teucer brevipennis.

Telioneura brevipennis, Butl. Ill. Het. i. p. 45, pl. 16. f. 9 (1877); Kirby, Cat. Het. p. 165.

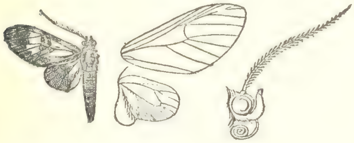

Fig. 188.—*Teucer brevipennis*, ♂. $\frac{1}{1}$.

♂. Head and thorax fuscous and brown; back of head with two orange spots; coxæ white; abdomen blackish, the anal tuft greyish at tip, the ventral surface white except towards extremity. Fore wing blackish brown, with some ochreous suffusion chiefly on the veins; a wedge-shaped hyaline spot in cell, and elongate patch below the cell; a series of four hyaline spots beyond the cell between veins 7 and 3; a rather indistinct subterminal ochreous line angled inwards below vein 2; cilia whitish at apex, at vein 5, and between veins 2 and 3. Hind wing black, with hyaline streaks in and below the cell towards base, the cilia and the rough scales on underside whitish.

Hab. Amazons, Rio Purus (*Trail*), 1 ♂ type. *Exp.* 24 millim.

*848. Teucer albapex. (Plate XIV. fig. 22.)

Teucer albapese, Druce, A. M. N. H. (7) i. p. 407 (1898).

♂. Black; palpi white in front; patagia and vertex of thorax streaked with greyish; coxæ and streaks on femora white; abdomen with a bluish tinge, lateral white stripes and the ventral surface white. Fore wing with wedge-shaped hyaline patch in cell; an elongate patch below cell and elongate spots between bases of veins 2–7, leaving a large black discoidal lunule; the apex white. Hind wing with hyaline fascia below the cell and between veins 2 and 3 extending to near termen; underside with the fold on inner area white.

Hab. Cayenne, 1 ♂ type † in Mus. Oxon. *Exp.* 24 millim.

Sect. II. Fore wing of male with some rough hair on underside of median nervure; hind wing with the tornus produced to a point, the inner area with a fold containing a tuft of long hair on underside.

849. Teucer glaucopis.

Telioneura glaucopis, Feld. Reis. Nov. pl. 102. f. 31 (1874); Kirby, Cat. Het. p. 166.

♂. Black-brown; palpi in front and frons spotted with white;

back of head and tegulæ with crimson spots; patagia with white patches; pectus with white patches; base of femora with white spots; abdomen with lateral series of large whitish spots, a white spot on terminal segment; the ventral surface with white patch extending to 3rd segment and followed by paired spots or bands on terminal segments. Fore wing with white points at base; a diffused postmedial whitish band from costa to vein 2. Hind wing hyaline, the veins and terminal area very broadly and irregularly black suffused with blue.

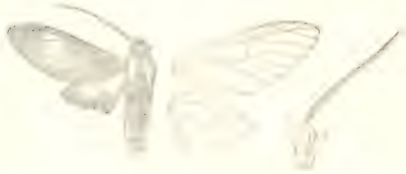
Fig. 189. - *Teucer glaucopis*, ♂. ½.

Hab. Amazons, R. Jurua, R. Purus, R. Negro (*Trail*), 4 ♂. *Exp.* 34 millim.

Sect. III. Wings of male normal, hind wing with vein 8 absent.

*850. Teucer carmania.

Pezaptera carmania, Druce, P. Z. S. 1883, p. 379; Kirby, Cat. Het. p. 153.

♂. Black; palpi in front, frons at sides, and fore coxæ white; abdomen with the ventral surface white except at extremity. Fore wing with two hyaline streaks in cell, a fascia below the cell and above bases of veins 2, 3, 4. Hind wing hyaline, the veins and margins black; the costal area black; the terminal black band expanding and irregular towards tornus.

Fig. 190. – *Teucer carmania*, ♂. ½.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 28 millim. Type † in Coll. Druce.

Genus EPANYCLES.

Type.
Epanycles, Butl. Journ. Linn. Soc., Zool. xii. p. 425 (1876) ... *imperialis*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ with the shaft somewhat thickened at middle, bipectinate, with short branches dilated at extremity and ending in a bristle, the apical part serrate; tibiæ with the spurs moderate; abdomen dorsally clothed with rough hair at base. Fore wing with veins 3, 4, 5 from angle of cell or 3 from near angle; 4, 5 from angle; 6 downcurved from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 from just above angle; 6, 7 shortly stalked; male with a fold on inner area containing a tuft of long hair on underside.

851. Epanycles imperialis.

Euchromia imperialis, Wlk. i. 241 (1854); Druce, Biol. Centr.-Am., Het. i. p. 80; Kirby, Cat. Het. p. 173.

Head and thorax black, with patches of brassy green; antennæ black; legs black, the fore coxæ brassy green; abdomen brown, suffused with brassy green especially towards extremity. Fore wing brown shot with purple; the base of costa brassy green. Hind wing fuscous slightly shot with purple; slight hyaline streaks in and below cell; the fold on underside of male whitish.

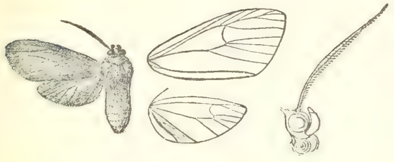

Fig. 191.—*Epanycles imperialis*, ♂. $\frac{1}{1}$.

Hab. GUATEMALA (*Champion*), Godman-Salvin Coll.; AMAZONS, Santarem type, Ega, Tapajcs (*Bates*). *Exp.* 32 millim.

Genus PTERYGOPTERUS.

Type.

Pterygopterus, Butl. Journ. Linn. Soc., Zool. xii. p. 411 (1876)... *clavipennis*.

Proboscis fully developed; palpi upturned to vertex of head, the 2nd joint rather broadly scaled, the 3rd short and obtuse; antennæ long, bipectinate, with moderate branches dilated at extremity and ending in a bristle; thorax and base of abdomen clothed with thick hair; tibiæ with the spurs moderate. Fore wing with the costa arched towards apex, the termen very obliquely curved; vein 3 from near angle of cell; 4, 5 approximated for a short distance; 6 from upper angle; 7, 8, 9, 10 stalked. Hind wing of male with the termen much excised towards tornus, which is developed into a large pointed lobe bearing tufts of hair above and with a large tuft from base, of female much less lobed; the cell long: vein 2 from well before angle; 3, 4 from angle; 5 curved from below middle of discocellulars; 6, 7 from upper angle.

A. Fore wing with large apical white patch .... *leucomelas*.
B. Fore wing without apical white patch.
  a. Antennæ with the terminal one-third orange; wings shot with metallic green .... *clavipennis*.
  b. Antennæ with the branches of terminal two-thirds orange; wings shot with metallic blue .... *cæruleus*.

852. Pterygopterus leucomelas.

Automolis leucomela, Wlk. vii. 1636 (1856); Kirby, Cat. Het. p. 164.
Pterygopterus superbus, Druce, Biol. Centr.-Am., Het. i. p. 67, pl. 8. f. 7 (1884); Kirby, Cat. Het. p. 158.

♂. Blue-black; antennæ orange at tips; hind coxæ with whitish patches; head and abdomen suffused in parts with metallic blue. Fore wing with slight patches of metallic blue at base of vein 1 and extremity of median nervure; a large apical white patch leaving the cilia black; the terminal area irregularly brown. Hind wing blue-black, with the apex metallic blue.

Hab. PANAMA, type *superbus* in Coll. Staudinger; BRAZIL, Up. Amazons, 1 ♂, Para (*Bates*), type† in Mus. Oxon. *Exp.* 52 millim.

853. Pterygopterus clavipennis.

Pterygopterus clavipennis, Butl. Journ. Linn. Soc., Zool. xii. p. 411 (1876); Kirby, Cat. Het. p. 158.

♂. Blue-black; antennæ orange at tips; head suffused with metallic blue; hind coxæ with whitish patches; abdomen with some metallic green at base and on sides. Fore wing with some metallic green on base and extremity of median nervure and on base of vein 1; the area from base to middle of vein 1, to beyond lower angle of cell and the costal area greenish, leaving the terminal area irregularly brown. Hind wing blue black, the costal area and veins brilliant metallic green. Underside shot with metallic green, except the interspaces of terminal area.

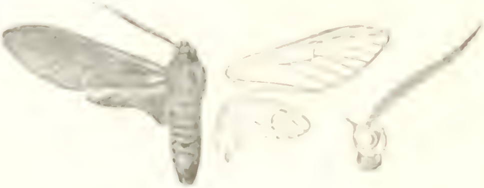

Fig. 192.—*Pterygopterus clavipennis*, ♂. ½.

Hab. Brazil, Espiritu Santo, 1 ♂ type. *Exp.* 48 millim.

*854. Pterygopterus cæruleus, n. sp.

Pterygopterus clavipennis, Druce, Biol. Centr.-Am., Het. ii. p. 351, pl. 72. f. 11 (♂; ♀) (nec Butl.).

Black; antennæ with the branches of terminal two-thirds orange, the shaft black above to near middle; head, metathorax, and legs shot with brilliant metallic blue; hind coxæ with brownish-white patches; abdomen with some blue on basal segments and subdorsal blue fasciæ; the 1st segment with two blue-edged whitish ventral spots. Fore wing blue-black, the terminal area brown; a metallic blue spot at base and streak on end of median nervure. Hind wing black; the apical part of costal area blue. Underside of both wings with the veins bounding the cell and rising from it streaked with metallic blue; male with the tuft of hair at base of hind wing brown.

Hab. Mexico, Jalapa, Orizaba. *Exp.*, ♂ 52, ♀ 56 millim. Type † in Coll. Schaus.

Genus EPISCEPSIS.

	Type
Episcepsis, Butl. Ill. Het. i. p. 49 (1877)	*venata.*

Proboscis fully developed; palpi upturned to just above vertex of head; antennæ bipectinate, with short branches dilated at extremity and ending in a bristle; tibiæ with the spurs short; abdomen dorsally clothed with long hair at base. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4 from angle; 5 from well above angle; 6, 7 from upper angle; male usually with a fold on inner area above containing a tuft of long hair.

Sect. I. Hind wing of male with the tornus produced to a point.

A. Male with the tuft of hair from abdomen behind stigmata, the inner margin of hind wing very short.

855. Episcepsis melanitis.

Centronia melanitis, Hübn. Zutr. ex. Schmett. i. p. 19, ff. 93, 94 (1827); Kirby, Cat. Het. p. 402.

♂. Black-brown; the tufts on abdomen and fold on inner margin of hind wing white; palpi white in front; legs striped with white abdomen with slight lateral segmental lines and subventral series of white spots. Fore wing with oblique golden-yellow band from middle of costa almost reaching tornus; cilia white at apex. Underside shot with brilliant blue.

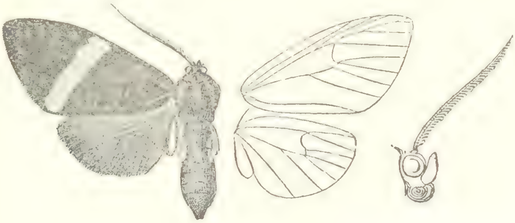

Fig. 193.—*Episcepsis melanitis*, ♂. $\frac{1}{1}$.

Hab. Br. Guiana, 2 ♂. *Exp.* 54 millim.

B. Male with the tuft of hair from base of hind wing, the inner margin long.

a. Fore coxæ crimson .... *lenæus.*
b. Fore coxæ white .... *thetis.*

856. Episcepsis lenæus.

Sphinx lenæus, Cram. Pap. Exot. iii. pl. 248. G (1780); Druce, Biol. Centr.-Am., Het. i. p. 74; Kirby, Cat. Het. p. 164.

♂. Head and thorax fuscous brown; back of head and shoulders with paired crimson spots; fore coxæ crimson; abdomen metallic blue, the dorsal patch of hair brown; the ventral surface fuscous, with white patches on first three segments. Fore wing fuscous brown, with apical white patch. Hind wing fuscous with a slight bluish tinge; some hyaline in, below, and beyond cell; the tuft on inner area white.

♀. Abdomen without white patches below.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀; Costa Rica (*Zurcher, Underwood*), 2 ♂ 1 ♀, Godman-Salvin Coll.; British Guiana, Demarara, 1 ♂. *Exp.* 36 millim.

857. Episcepsis thetis.

Sphinx thetis, Linn. Mant. Plant. p. 539 (1771); Drury, Ill. Ex. Ent. i. pl. 26. f. 4; Kirby, Cat. Het. p. 164.
Zygæna thetis, Fabr. Spec. Ins. ii. p. 166 (1781).
Heliura leneus (part), Druce, Biol. Centr.-Am., Het. i. p. 74.

♂. Head and thorax fuscous black; back of head and shoulders with paired crimson spots; 1st joint of palpi and fore coxæ white; abdomen metallic blue-green, the dorsal patch of hair fuscous; the ventral surface fuscous, with white patches on first three segments. Fore wing fuscous black, with apical white patch. Hind wing semihyaline, the terminal area broadly and irregularly suffused with black; the tuft on inner area yellowish white.

Fig. 194.—*Episcepsis thetis*, ♂. $\frac{1}{1}$.

Hab. Panama (*Champion*), 1 ♂, Godman-Salvin Coll.; Venezuela, 1 ♂. *Exp.* 34-38 millim.

Sect. II. Hind wing of male with the tornus not produced to a point.
- A. Hind wing of male with the inner area long, with a fold containing a tuft of hair.
  - *a*. Fore wing with dirty-white apical patch .... *rypoperas.*
  - *b*. Fore wing without white apical patch.
    - a^1. Fore coxæ white .... *gnoma.*
    - b^1. Fore coxæ crimson.
      - a^2. Tegulæ with crimson spots on their lower edges; abdomen with sublateral white streaks on basal segments .... *lenæus.*
      - b^2. Shoulders with crimson spots below tegulæ.
        - a^3. Abdomen entirely dark below; fore wing without dark streaks on the veins .... *inornata.*
        - b^3. Abdomen with white patches on first three segments below; fore wing with dark streaks on the veins .... *hypoleuca.*
        - c^3. Abdomen with diffused white below; fore wing with the interspaces whitish .... *venata.*

858. Episcepsis rypoperas, n. sp. (Plate XIV. fig. 3.)

Heliura leneus (part), Druce, Biol. Centr.-Am., Het. i. p. 74.

♂. Head and thorax fuscous brown; back of head and shoulders with paired orange spots; fore coxæ white; abdomen metallic blue, the dorsal patch of hair fuscous, the ventral surface white to near extremity which is fuscous. Fore wing fuscous brown, the veins paler; an apical dirty-white patch. Hind wing fuscous tinged with blue, some hyaline in, below, and beyond cell; the tufts of hair on inner area white.

Hab. HONDURAS, Belize (*Blancaneaux*), 1 ♂, type, Godman-Salvin Coll. *Exp.* 32 millim.

859. **Episcepsis gnoma.**

Heliura gnoma, Butl. Ill. Het. i. p. 44, pl. 16. f. 2 (1877); Kirby, Cat. Het. p. 164.

Head and thorax fuscous black; palpi white below; back of head and shoulders with paired crimson spots; fore coxæ white; legs streaked with white; abdomen brilliant metallic blue, the dorsal patch of hair fuscous; the ventral surface blackish, with white patches on first three segments. Fore wing fuscous black, the veins pale. Hind wing blackish shot with blue; hyaline streaks in, below, and beyond cell; the tufts of hair on inner area of male yellowish white.

Hab. AMAZONS, R. Padaniry (*Trail*), 1 ♂ type; Rio Janeiro, 1 ♀. *Exp.* 30 millim.

860. **Episcepsis lamia.**

Heliura lamia, Butl. Ill. Het. i. p. 44, pl. 16. f. 3 (1877); Kirby, Cat. Het. p. 164.

♂. Head and thorax fuscous brown; two scarlet spots on back of head and two on lower part of tegulæ; fore coxæ crimson; abdomen metallic blue-green, with the rough hair at base blackish: the ventral surface fuscous, with sublateral white lines on basal half. Fore wing uniform fuscous brown. Hind wing black shot with blue; hyaline streaks in, below, and beyond cell; the tuft on inner area whitish.

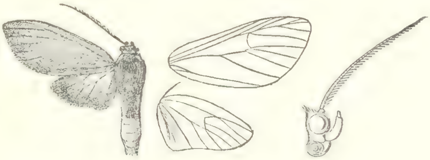

Fig. 195.—*Episcepsis lamia*, ♂. $\frac{1}{1}$.

Ab. 1. Spots on back of head and fore coxæ yellow.—Coll. Staudinger.

Hab. AMAZONS, Rio Purus (*Trail*), 2 ♂, type. *Exp.* 34 millim.

861. Episcepsis inornata. (Plate XIV. fig. 23.)

Automolis inornata, Wlk. vii. 1636 (1856); Kirby, Cat. Het. p. 176.
Heliura lasia, Druce, Biol. Centr.-Am., Het. i. p. 74 (part).

♀. Head, thorax, and abdomen fuscous brown; back of head and shoulders with paired scarlet spots; fore coxæ scarlet; abdomen shot with metallic blue above, except the dorsal hairy patch. Fore wing uniform fuscous brown. Hind wing fuscous, with the cell and area just below it semihyaline.

Hab. Guatemala, Dueñas, Volcan de Atitlan (*Champion*), 2 ♀, Godman-Salvin Coll.; Costa Rica (*Underwood*), 1 ♀; West Coast of America (*Kellett*), 1 ♀ type. *Exp.* 32–38 millim.

862. Episcepsis hypoleuca, n. sp. (Plate XIV. fig. 4.)

Heliura lasia, Druce, Biol. Centr.-Am., Het. i. p. 74 (part).

Head and thorax fuscous; back of head and shoulders with paired scarlet spots; fore coxæ scarlet; abdomen metallic blue above, the segments edged with black, the dorsal patch of hair fuscous; the ventral surface fuscous, with large white patches on first three segments. Fore wing fuscous brown, the veins blackish. Hind wing fuscous shot with blue, the area in and below cell semihyaline.

Hab. Costa Rica, Candelaria Mts. (*Underwood*), 1 ♂ 2 ♀, type, Godman-Salvin Coll. *Exp.* 36 millim.

863. Episcepsis venata

Episcepsis venata, Butl. Ill. Het. ii. p. 49, pl. 16. f. 7 (1877); Druce, Biol. Centr.-Am., Het. ii. p. 358; Kirby, Cat. Het. p. 175.
Heliura alba, Schaus, Ent. Am. v. p. 90 (1889); Kirby, Cat. Het. p. 164.

Fuscous black; back of head and shoulders with paired crimson spots; fore coxæ crimson; abdomen suffused with metallic blue towards extremity, and with diffused white below except towards extremity. Fore wing dirty whitish with diffused brown on the veins, discocellulars, apical and tornal areas. Hind wing with slight hyaline streaks in, below, and beyond the cell; the tuft of hair in male pale.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀, Tabasco (*H. H. Smith*), 1 ♂, Godman-Salvin Coll.; Amazons, R. Jutahi (*Trail*), 1 ♀ type. *Exp.* 32 millim.

B. Hind wing of male with the inner margin very short, the tornus obliquely truncate and with a fringe of thick hair.
a. Coxæ and ventral surface of abdomen yellowish; fore wing [illegible] black .... [illegible]
b. Coxæ and ventral surface of abdomen pinkish; fore wing brown, the veins fuscous .... *obsoleta.*

864. **Episcepsis endodasia**, n. sp. (Plate XIV. fig. 24.)

♂. Rusty black; coxæ and ventral surface of abdomen except terminal segments yellowish white. Hind wing semihyaline, the veins and margins and an irregular diffused terminal band fuscous; the thick hair at tornus on underside yellowish.

Hab. Brazil, Castro Paraña, 1 ♂ type. *Exp.* 36 millim.

865. **Episcepsis obsoleta.**

Charidea obsoleta, Burm. Descr. Rep. Arg. v. p. 516 (1878); Kirby, Cat. Het. p. 176.

Fuscous brown; base of palpi, coxæ, and ventral surface of abdomen pale pinkish; wings, especially the fore wing, with the veins fuscous; male with the thick hair at tornus of hind wing on underside yellowish.

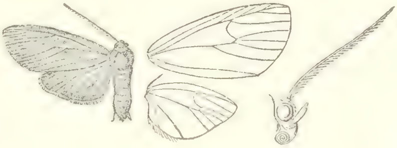

Fig. 196.—*Episcepsis obsoleta*, ♂. ½.

Hab. Argentina (*Leech*), 2 ♂ 1 ♀. *Exp.* 32 millim.

C. Hind wing of male with the inner area and tornus normal.
a. Hind legs of male with tufts of long hair on inner side of femora and tibiæ.

*866. **Episcepsis moloneyi.**

Aclytia moloneyi, Druce, Biol. Centr.-Am., Het. ii. p. 352, pl. 72. f. 16 (1897).

Black-brown; frons, vertex of head, tegulæ, patagia, and thorax with patches of metallic blue-green; crimson spots at sides of tegulæ, behind eyes, and at base of palpi; coxæ and tufts on hind legs white; abdomen with lateral series of metallic green patches and dorsal patches on last four segments, the ventral surface with

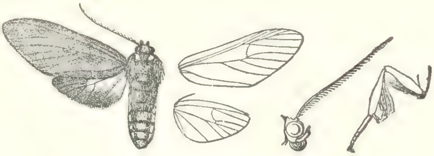

Fig. 197.—*Episcepsis moloneyi*, ♂. ½.

the 2nd, 3rd, and 4th segments white. Hind wing with hyaline white streaks in and below cell, between veins 2 and 3, and on inner area.

Hab. British Honduras, Belize (*Moloney*). *Exp.* 38 millim. Type ♀ in Coll. Druce.

b. Hind legs of male without tufts of hair.

867. Episcepsis demonis.

Eucereon demonis, Druce, A. M. N. H. (6) xviii. p. 38 (1896); Biol. Centr.-Am., Het. ii. p. 364, pl. 73. f. 15.

Head, thorax, and abdomen black-brown; back of head with two crimson spots; abdomen with dorsal crimson spot on 1st segment, and lateral spots on 4th segment. Fore wing greyish black-brown; an obscure, oblique, subbasal black band, and curved antemedial band; a subquadrate hyaline spot in end of cell; a blackish discoidal bar; an ill-defined postmedial blackish band excurved between veins 5 and 3, then bent inwards to below angle of cell, and with a curved hyaline band beyond it from vein 8, narrowing to vein 3, and with a curved dark patch beyond it from costa to vein 5; terminal dark patches at apex and below vein 5. Hind wing hyaline, the veins black; a terminal bluish-black band expanding widely towards apex and tornus.

Hab. Panama, Chiriqui (*Trötsch*), 1 ♂; type ♀ in Coll. Staudinger. *Exp.* 44 millim.

Genus ANDROCHARTA.

Type

Androcharta, Feld. Wien. Ent. Mon. v. p. 231 (1862) .... *meones*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with very short branches dilated at extremity; tibiæ with the spurs minute. Fore wing with the outer margin long and obliquely rounded; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing small; the lower part of cell shorter than the upper; vein 2 from long before angle; 3 from well before; 4, 5 from angle, very shortly stalked or separate; 6, 7 from upper angle; male with the hind wing elliptical, contorted and folded; the tornus produced to a small lobe; veins 1 *a*, *b* more or less curved and bent up to near cell; 2 to 5 more or less curved and approximated to 6, 7.

A. Patagia with large white patches.
  a. Abdomen with dorsal crimson bands; fore wing without crimson subcostal streak .... *rubricincta*.
  b. Abdomen with dorsal crimson spots, in ♂ on first two segments only; fore wing with subcostal crimson streak .... *meones*.
B. Patagia without white patches.
  a. Fore wing with orange postmedial band .... *cassotis*.
  b. Fore wing with hyaline postmedial band.
    a^1. Hind wing of male short and rounded .... *diversipennis*.
    b^1. Hind wing of male elongate, elliptical .... *stretchi*.

868. **Androcharta rubricincta.** (Plate XIV. fig. 13.)

Charidea rubricincta, Burm. Descr. Rep. Arg. v. p. 383 (1878); Kirby, Cat. Het. p. 123.
Androcharta leechi, Druce, P. Z. S. 1893, p. 283.

♂. Black-brown; 1st joint of palpi, vertex of head, and tegulæ with patches of metallic blue; patagia and fore coxæ with white patches; abdomen blue-black; the 1st segment with crimson dorsal patch, the 2nd with dorsal band and lateral spots, and the others with dorsal bands; slight dorsal and subdorsal series of blue points. Fore wing with blue spot at base of costa and point on discocellulars; a white spot below middle of cell and point towards end of it; white spots between veins 3 and 5. Hind wing fuscous, with elliptical white patch on terminal area; underside brown, with white spot below end of cell; veins 1–5 moderately distorted and curved.

Hab. Amazons (*Leech*), type *leechi* † in Coll. Druce; Argentina, Goya (*Perrins*), 1 ♂. *Exp.* 44 millim.

869. **Androcharta meones.**

Sphinx meones, Stoll, Pap. Exot. iv. pl. 325. E (1780); Kirby, Cat. Het. p. 174.
Glaucopis compta, Sepp, Surin. Vlind. i. p. 81, pl. 37 (1848).
Charidea meonioides, Herr.-Schäff. Aussereur. Schmett. i. f. 237 (1854).

♂. Black-brown; 1st joint of palpi, frons, vertex of head, tegulæ, patagia, metathorax, and legs with patches of metallic blue; patagia and fore coxæ with white patches; abdomen with dorsal crimson spots on first two segments, a subdorsal series of metallic blue patches, and three sublateral crimson spots. Fore wing with blue marks at base; two fine crimson streaks below costa reaching beyond middle, conjoined at extremity, and the upper not reaching base; two short streaks below base of median nervure; a small hyaline spot towards end of cell; two blue points on discocellulars; three hyaline spots beyond the cell between veins 6 and 3, increasing in size towards vein 3; traces of a patch of white scales sometimes present below middle of cell. Hind wing white. Underside of fore wing with large white patch below the cell: hind wing black, with some blue scales in base of cell and white patch below the cell; veins 1–5 greatly distorted and curved.

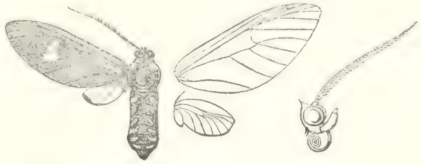

Fig. 198.—*Androcharta meones*, ♂. $\frac{1}{1}$.

♀. Abdomen with complete dorsal series of crimson spots; fore wing with hyaline spot below middle of cell; hind wing black, with hyaline fascia below the cell bent up beyond it to upper angle; a patch of metallic blue at tornus.

Hab. COLOMBIA, Bogota (*Buckley*), 1 ♀, Sta. Marta (*Bouchard*), 1 ♂ 1 ♀; SURINAM. *Exp.* 38–52 millim.

870. Androcharta cassotis.

Androcharta cassotis, Druce, P. Z. S. 1883, p. 382, pl. 40. f. 11; Kirby, Cat. Het. p. 174.

♂. Black; frons, tegulæ, metathorax, and legs with brilliant blue spots; abdomen with subdorsal and sublateral series of blue spots. Fore wing with blue point at base; a slight subcostal crimson streak, a streak in distal half of cell, a bi-sinuate streak in submedian interspace almost reaching termen, and traces of a streak above inner margin; blue points at angles of cell; a broad oblique orange postmedial band from below costa to vein 3. Hind wing greyish, the inner area black; underside with some blue in cell; veins 1–5 slightly distorted and curved.

♀. Fore wing without the red streaks in cell, the basal part of submedian streak obsolete; hind wing with crimson patch beyond the cell between veins 2 and 6; vein 7 bifurcates towards apex.

Hab. ECUADOR (*Buckley*), type ♂ in Coll. Druce; AMAZONS, Huallaga, 1 ♂ 1 ♀. *Exp.* ♂ 44, ♀ 56 millim.

871. Androcharta diversipennis.

Euchromia diversipennis, Wlk. i. 225 (1854); Butl. Ill. Het. i. p. 48, pl. 10. f. 9; Kirby, Cat. Het. p. 174.

Androcharta [illegible], Butl. Journ. Linn. Soc., Zool. xii. p. 427 (1876); Kirby, Cat. Het. p. 174.

Androcharta parvipennis, Butl. Journ. Linn. Soc., Zool. xii. p. 427 (1876); Kirby, Cat. Het. p. 174.

Androcharta claripennis, Butl. Trans. Ent. Soc. 1878, p. 46; Kirby, Cat. Het. p. 174.

♂. Black-brown; 1st joint of palpi, frons, vertex of head, tegulæ, patagia, metathorax, and legs with patches of metallic blue; fore coxæ with white patches; abdomen blue-black, with dorsal crimson spots on first two segments; a subdorsal series of metallic blue patches, sublateral crimson points on first three segments and blue points on terminal segments. Fore wing with blue points at base; two fine crimson streaks below costa to beyond middle, conjoined towards extremity, and the upper not reaching base; two short streaks below base of median nervure; a wedge-shaped hyaline spot towards end of cell; two blue points on discocellulars; three hyaline spots beyond the cell between veins 6 and 3, increasing in size towards vein 3, and sometimes with small spot above vein 6, always present on underside. Hind wing white, with the costal area fuscous narrowing to apex; underside brown, with blue spot in base of cell and white spot below the cell; veins 1–5 greatly distorted and curved.

♀. Abdomen with complete dorsal series of crimson spots. Fore wing with large hyaline spot below middle of cell. Hind wing brown, with hyaline fascia below the cell bent up beyond it to upper angle.

Ab. 1, ♂. *claripennis*: fore wing with two small hyaline spots below the cell beyond the crimson streaks.

Ab. 2, ♀. *brasiliensis*: fore wing without the hyaline spot above vein 5.

Ab. 3. Fore wing without crimson fasciæ; abdomen of ♂ without sublateral crimson spots, of ♀ with only two dorsal spots.

Hab. BRAZIL, type *brasiliensis,* Amazons, Pupunha, Rio Jutahi (*Trail*), type ♂ *claripennis*, Ega, Tapajos (*Bates*), type, São Paulo; PERU (*Degand*). *Exp.* 44 millim.

872. Androcharta stretchi.

Androcharta stretchii, Butl. Journ. Linn. Soc., Zool. xii. p. 427 (1876); Ill. Het. i. p. 48, pl. 18. f. 7; Kirby, Cat. Het. p. 174.

♂. Black; 1st joint of palpi, frons, vertex of head, tegulæ, patagia, metathorax, and legs with patches of metallic blue; fore coxæ with white patches; abdomen with subdorsal series of metallic blue patches and sublateral points. Fore wing with blue points at base; a short blue streak below base of median nervure and traces of a crimson one; a blue streak in cell and on median nervure and a band on discocellulars; a quadrate hyaline spot in the cell; an oblique white spot below middle of cell; three hyaline patches beyond the cell between veins 6 and 3, and a small spot above vein 6. Hind wing white. Underside of fore wing with large white patch below the cell; hind wing with blue streak in cell; diffused white below the cell, some white on veins, and the termen white; veins 1–5 greatly distorted and curved.

♀. Fore wing with large hyaline spot below origin of vein 2; hind wing with hyaline fascia below and beyond cell.

Hab. UP. AMAZONS, Iquitos, 1 ♀; PERU (*Degand*), 1 ♂ type. *Exp.* 50 millim.

Subsp. 1. Fore wing with scarlet fasciæ below costa to beyond middle and below base of cell, the spot below vein 2 obsolete; abdomen with lateral crimson spots on three basal segments.

Hab. URUGUAY, 1 ♂.

Genus ERIPHIOIDES.

	Type.
Eriphioides, Kirby, Cat. Het. p. 159 (1892), non descr............	*ustulata.*

Proboscis fully developed; palpi porrect, reaching beyond the frons, which is surrounded by rough hair, the 2nd joint fringed with hair; antennæ bipectinate, with short branches dilated at extremity, the medial part of shaft dilated, the terminal part simple; tibiæ with the spurs moderate; abdomen with lateral tubercles on 1st segment and lateral anal tufts. Fore wing long and narrow; vein 3 from before angle of cell and approximated to 2 towards termen; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell very long; veins 2 and 3 from angle; 4 absent; 5 curved from below middle of discocellulars; 7 in male much curved from well before angle of cell, in female from angle; the costa very highly arched in male, the costal area of hind wing above and inner area of fore wing below clothed with silky scales, and with fringes of long hair on medial part of inner margin and costa.

A. Abdomen with sublateral white spot on 4th segment.
  a. Palpi with the 1st joint white; back of head crimson; pectus with white patches .... *tractipennis.*
  b. No white on palpi or pectus, or crimson on back of head; mid and hind coxæ white .... *surinamensis.*
B. Abdomen without white spot on 4th segment ... . *ustulata.*

873. Eriphioides tractipennis.

Eriphia tractipennis, Butl. Journ. Linn. Soc., Zool. xii. p. 414 (1876); Druce, Biol. Centr.-Am., Het. i. p. 69, pl. 7. f. 27; Kirby, Cat. Het. p. 159.

Dark red-brown; palpi white at base; back of head, neck, and patches on shoulders scarlet; tegulæ, shoulders, and metathorax with cupreous-green patches; pectus and fore coxæ with white patches; abdomen with dorsal and subdorsal series of cupreous-green spots; sublateral white patches on first three segments, and a spot on 4th segment. Fore wing with the veins blackish; the costal area of hind wing above and the inner area of fore wing covered by the costal lobe of hind wing, whitish; patches of metallic green on underside on disk of fore wing and on basal costal area of hind wing.

Hab. Nicaragua, Chontales (*Janson*), type; Guatemala; Panama (*Champion*), Godman-Salvin Coll. *Exp.* 36 millim.

874. Eriphioides surinamensis.

Eriphia surinamensis, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 640, pl. 8. ff. 11, 11*a* (1877); Kirby, Cat. Het. p. 159.
Eriphia tractipennis, Druce, Biol. Centr.-Am., Het. i. p. 69 (part), nec Butl.

♂. Black-brown; patches of scarlet behind neck and on front of pectus; patches of metallic green on head, tegulæ, shoulders, and metathorax, and of white on coxæ; abdomen with dorsal and subdorsal series of cupreous-green spots; sublateral white patches on first three segments and a spot on 4th segment; the costal area of hind wing above and the inner area of fore wing below covered by the costal lobe of hind wing, whitish; metallic green patches on underside on disk of fore wing and basal costal area of hind wing.

Hab. Panama (*Champion*, *Ribbe*), 2 ♂, Godman-Salvin Coll.; Colombia, Bogota (*Stevens*), 1 ♂; Cayenne, type ♀ in Coll. Staudinger. *Exp.* 42 millim.

875. Eriphioides ustulata.

Eriphia ustulata, Feld. Reis. Nov. pl. 102. f. 17 (1874) ; Kirby, Cat. Het. p. 159.

♂. Head, thorax, and abdomen black; antennæ metallic blue-green; head and thorax above almost entirely cupreous green; shoulders with a crimson spot; abdomen with dorsal series of large cupreous-green spots, the lateral and ventral surfaces cupreous green; lateral white spots on 2nd segment, and sublateral white fasciæ on first three segments. Fore wing yellow-brown, with the veins black; the terminal area slightly suffused with fuscous. Hind wing blackish, the costal area white. Underside with the inner area covered by lobe of hind wing white; patches of metallic blue-green on discal area of fore wing and basal costal area of hind wing.

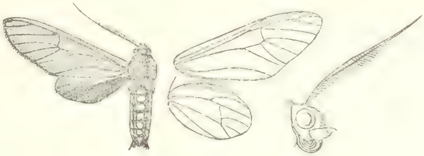

Fig. 199.—*Eriphioides ustulata*, ♂. $\frac{1}{1}$.

Hab. Colombia (*Rosenberg*), 2 ♂. *Exp.* 40 millim.

Genus CERAMIDIA.

	Type.
Ceramidia, Butl. Journ. Linn. Soc., Zool. xii. p. 412 (1876) ...	*fumipennis.*
Passineura, Butl. Journ. Linn. Soc., Zool. xii. p. 412 (1876)...	*phemonoides.*

Proboscis fully developed; palpi obliquely upturned and not reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs short; abdomen with lateral tubercles on 1st segment. Fore wing rather narrow; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Male with a slight streak of androconia below medial part of costa on underside. Hind wing with vein 2 from close to angle of cell; 4 absent; 5 from above angle; 7 from before angle in male, from angle in female; male with the costa highly arched, covering a tuft of hair on inner margin of fore wing on underside.

A. Abdomen with the ventral surface white except on terminal segment .... *obscura.*
B. Abdomen with the ventral surface of 1st three segments white .... *butleri.*
C. Abdomen with sublateral white spots on 1st segment in male, on 1st three segments in female.
  a. Palpi and fore coxæ with white points; fore wing shot with green .... *caca.*
  b. Palpi and fore coxæ without white points; fore wing shot with blue .... *ornata.*

D. Abdomen with sublateral white stripes except on terminal segment.
- a. Underside of hind wing with the white extending up [illegible]
- b. Underside of hind wing with broad white fascia in, below, and beyond cell .... *phœnomoides.*
- c. Underside of hind wing with slight white mark in end of cell .... *fumipennis.*
- d. Underside of hind wing without white; wings brilliant blue .... *flammea.*

876. Ceramidia obscura.

Ceramidia obscura, Butl. Ill. Het. i. p. 40, pl. 16. f. 5 (1877); Kirby, Cat. Het. p. 158.

♀. Dark cupreous brown; palpi with the basal joint white; neck with crimson patches; coxæ whitish; abdomen tinged with cupreous; the ventral surface white to near extremity.

♂. Palpi mostly white; frons with white patch; underside with the inner area of fore wing white; hind wing with more or less white on inner area.

Hab. Amazons, R. Purus (*Trail*), 1 ♀ type, Manicoré, 2 ♂. *Exp.* 34 millim.

877. Ceramidia butleri.

Eryphia butleri, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 640, pl. 8. ff. 12, 12*a* (1877); Kirby, Cat. Het. p. 159.
Antichloris viridis, Druce, Biol. Centr.-Am., Het. i. p. 68, pl. 7. f. 25 (1884); Kirby, Cat. Het. p. 159.
Antichloris cephea, Druce, Biol. Centr.-Am., Het. i. p. 68 (nec Fabr.).

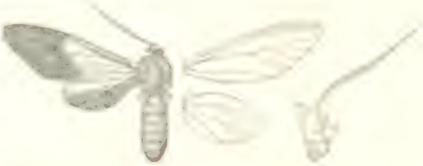

Fig. 200.—*Ceramidia butleri*, ♂. 1/1.

♂. Black shot with cupreous green; neck with lateral crimson patches; fore coxæ with white patches; abdomen more cupreous in colour, the 1st segment with some white on lateral tubercles; ventral surface with the first three segments white. Fore wing with the basal half most brilliantly cupreous green, especially in type *viridis.* Hind wing with the costal area whitish.

Hab. Guatemala, Panama (*Champion*), type *viridis*, Godman-Salvin Coll.; Surinam, type ♀ in Coll. Staudinger; Amazons, Para (*Austen*). *Exp.* 38–40 millim.

878. Ceramidia caca.

Antichloris caca, Hübn. Zutr. ex. Schmett. i. p. 24, ff. 133, 134 (1827); Kirby, Cat. Het. p. 159.

♂. Black shot with cupreous green; basal joint of palpi and fore coxæ with white spots; abdomen with lateral white spots on 2nd segment and sublateral spots on 1st segment. Fore wing with the medial area most brightly shot with green. Hind wing with the costal area pale.

♀ with sublateral white spots on first three segments.

Hab. Brazil, Rio Janeiro, 1 ♂ 1 ♀. *Exp.* 46 millim.

879. **Ceramidia ornata.** (Plate XIV. fig. 16.)

Illipula ornata, Druce, P. Z. S. 1883, p. 380; Kirby, Cat. Het. p. 157.

Head and throat black; frons, vertex of head, tegulæ, and patagia with some blue; abdomen golden green, with subdorsal white spots on 2nd segment and sublateral spots on 2nd, 3rd, and 4th segments. Fore wing suffused with brilliant peacock-blue to near termen. Hind wing with the disk slightly tinged with green. Underside of both wings entirely suffused with blue.

Hab. Colombia, 1 ♀; Ecuador, Intaj (*Buckley*), type † in Coll. Druce; Bolivia. *Exp.* 50 millim.

880. **Ceramidia cataleuca.** (Plate XIV. fig. 5.)

Ceramidia cataleuca, Butl. Journ. Linn. Soc., Zool. xii. p. 412 (1876); Kirby, Cat. Het. p. 158.

♂. Dark cupreous brown; 1st joint of palpi and frons white; neck with crimson lateral patches; legs striped with white; abdomen cupreous green, with broad sublateral white stripes except on terminal segment. Hind wing with the costal area white. Underside of fore wing with metallic green on costal area and veins, and a large whitish patch on inner area; hind wing with green at base of costa, the whole of the rest of wing yellowish white except a brown patch on termen broad at middle.

Hab. Ecuador (*Buckley*), 2 ♂; Surinam; Upper Amazons (*Degand*), 1 ♂ type. *Exp.* 32 millim.

881. **Ceramidia phemonoides.**

Antichloris phemonoides, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 639, pl. 8. ff. 10, 10 *a* (1854); Kirby, Cat. Het. p. 158.
Passineura fusiformis, Butl. Journ. Linn. Soc., Zool. xii. p. 413 (nec Wlk.).

♂. Dark cupreous brown; palpi at base and frons white; neck and shoulders with patches of crimson; vertex of head, tegulæ, base of patagia, shoulders, and thorax with cupreous-green patches; legs striped with white; abdomen cupreous green, with broad sublateral white stripes except on terminal segment. Hind wing with the costal half white to below the cell. Underside of wings shot with green; fore wing with large whitish patch on inner area; hind wing with broad white fascia in, below, and beyond cell to near termen.

Hab. Cayenne, type ♂ in Coll. Staudinger; Amazons, Tapajos (*Bates*), 1 ♂. *Exp.* 36 millim.

882. Ceramidia fumipennis. (Plate XIV. fig. 26.)

Euchromia fumipennis, Wlk. i. 241 (1854); Kirby, Cat. Het. p. 158.

♂. Dark cupreous brown; 1st joint of palpi and frons with white spots; neck with crimson lateral patches; legs striped with white; abdomen cupreous green, broad sublateral white stripes except on terminal segment. Hind wing with the costal area greyish. Underside with the costal half of wings suffused with cupreous green to end of cell; hind wing with slight white streak in end of cell.

Hab. Amazons, Ega (*Bates*), 3 ♂, type. *Exp.* 36 millim.

883. Ceramidia flammea.

Antichloris flammea, Dognin, Bull. Soc. Ent. Fr. lx. p. clv (1891); id. Lép. Loja, pl. 8. f. 2; Kirby, Cat. Het. p. 903.

Head and thorax with golden-green patches outlined in black; crimson spots at base of tegulæ; abdomen golden green, with sublateral white stripes on first four segments; wings brilliant blue; fore wing with metallic blue spot at base of costa.

Hab. Ecuador, Loja; Bolivia, Songo, 1 ♂. *Exp.* 42 millim. Type ♂ in Coll. Dognin.

Genus AMYCLES.

	Type.
Amycles, Herr.-Schäff. Aussereur. Schmett. f. 259 (1854), non Loew	*anthracina.*
Dipteromorpha, Feld. Reis. Nov. pl. 102. f. 28 (1874), non Hübn.	*anthracina.*

Proboscis fully developed; palpi short, slender, and hardly reaching beyond frons; antennæ bipectinate with moderate branches, the apical one-third serrate; tibiæ with the spurs moderate; abdomen with lateral tubercles on 1st segment. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle, 7, 8, 9, 10 stalked, 7, 8, 9 from towards apex; 11 from cell; male with a slight streak of androconia below middle of costa on underside. Hind wing with the cell long; veins 2 and 3 from angle; 4 absent; 5 from just below middle of discocellulars; 7 from before angle of cell in male; the costa arched towards apex and covering a fringe of hair on medial part of inner margin of fore wing of underside.

A. Fore wing with the apical area hyaline; abdomen without green stripes .... *anthracina.*
B. Fore wing with the apical area dark; abdomen with green dorsal and lateral stripes .... *dolosa.*

884. Amycles anthracina.

Euchromia anthracina, Wlk. i. 253 (1854); Herr.-Schäff. Aussereur. Schmett. f. 259; Butl. Ill. Het. i. p. 40. pl. 9. f. 7; Druce, Biol. Centr.-Am., Het. i. p. 68; Kirby, Cat. Het. p. 159.

Dipteromorpha adusta, Feld. Reis. Nov., Lep. pl. 102. f. 28 (1874); Druce, Biol. Centr.-Am., Het. i. p. 67; Kirby, Cat. Het. p. 157.

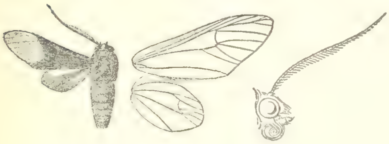

Fig. 201.—*Amycles anthracina*, ♂. $\frac{1}{1}$.

Black-brown; antennæ white towards tips; neck with lateral crimson marks; fore coxæ and tarsi whitish; abdomen with paired ventral white marks at base. Fore wing with the black-brown area shading off to reddish brown before the diffused yellowish-white band across apical area; the apex fuscous, or the whole apical area almost hyaline. Hind wing with two hyaline streaks on inner area; the costal area of hind wing, and the inner area of fore wing covered by the costal lobe of hind wing, whitish.

Hab. Mexico, Jalapa (*Hoege*), Cordova (*Rümeli*), Orizaba (*Godman*); Guatemala; Panama (*Champion, Ribbe*), Godman-Salvin Coll.; Venezuela; Brazil. *Exp.* 28–34 millim.

885. **Amycles dolosa.** (Plate XIV. fig. 6.)

Euchromia dolosa, Wlk. i. 238 (1854); Kirby, Cat. Het. p. 157.

♀. Dark brown; neck with slight crimson lateral patches; abdomen with slight dorsal and broad lateral cupreous-green stripes; sublateral white spots on first two segments.

Hab. Brazil, Pernambuco, 1 ♀ type. *Exp.* 30 millim.

Genus **ANTICHLORIS.**

	Type.
Antichloros, Hübn. Verz. p. 124 (1827)	*eriphia.*
Illipula, Wlk. i. 237 (1854)	*eriphia.*
Eriphia, Herr.-Schäff. Aussereur. Schmett. p. 16 (1854)	*eriphia.*

Proboscis fully developed; palpi obliquely upturned and not reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; abdomen with lateral tubercles on basal segment. Fore wing rather narrow; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from before angle of cell; 4 absent; 5 from just above angle; 7 from before upper angle in male, from angle in female; the costa highly arched in male, and the medial part of inner area of fore wing clothed with long hair on underside.

Sect. I. Hind wing with vein 2 given off towards angle of cell.

A. Antennæ of male bipectinate to apex.

886. **Antichloris quadricolor.**

Charidea quadricolor, Wlk. xxxv. 1867 (1866); Kirby, Cat. Het. p. 159.

♂. Deep metallic blue. Fore wing with the cilia orange.

Hind wing black, the costal area grey; a triangular crimson

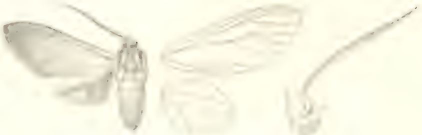

Fig. 202.—*Antichloris quadricolor*, ♂. ½.

patch on middle of terminal area; the cilia crimson except towards tornus.

Hab. Jamaica (*Swainson*), 5 ♂, type. *Exp.* 36 millim.

B. Antennæ with the apical one-fourth serrate.
  a. Head, thorax, and fore wing shot with green ………… *eriphia.*
  b. Head, thorax, and fore wing shot with purple ………… *scudderi.*

887. Antichloris eriphia.

Zygæna eriphia, Fabr. Gen. Ins. p. 276 (1776); Kirby, Cat. Het. p. 158.
Sphinx alector, Stoll, Pap. Exot. iv. pl. 382. D (1782); Kirby, Cat. Het. p. 157.
Antichloris phemonoe, Hübn. Zutr. ex. Schmett. i. p. 9, ff. 15, 16 (1827).
Sesia melanochloros, Sepp, Surin. Vlind. ii. p. 145, pl. 69 (1848).
Copæna scapularis, Herr.-Schäff. Aussereur. Schmett. f. 260 (1856); Kirby, Cat. Het. p. 159.
Chrysostola helus, Herr.-Schäff. Aussereur. Schmett. f. 263 (1855).

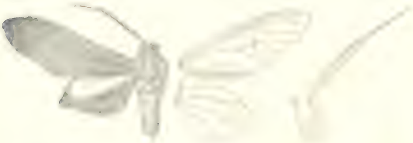

Fig. 203.—*Antichloris eriphia*, ♂. ½.

Black, diffused with deep metallic bronze-green; neck with some crimson at sides; white spots on 1st and 2nd joints of palpi and fore coxæ; legs striped with white behind in male, rarely in female; abdomen with dorsal and lateral green stripes, the 2nd segment with white lateral spots; sublateral maculate white stripes decreasing distally. Hind wing only tinged with green towards termen; the costal area of male pale greyish.

Hab. Trinidad (*Broadway, Caracciolo*); Surinam; Br. Guiana; Brazil, Para (*Bates*), Pernambuco, Rio Janeiro. *Exp.* 40 millim.

888. Antichloris scudderi. (Plate XIV. fig. 25.)

Antichloris scudderii, Butl. Journ. Linn. Soc., Zool. xii. p. 413 (1876); Kirby, Cat. Het. p. 158.

♂. Black suffused with purple; vertex of head and tegulæ with patches of metallic blue; neck with crimson tufts; palpi and fore coxæ spotted with white; legs striped with white behind; abdomen with metallic blue dorsal and lateral stripes; the 2nd segment with lateral white spots; sublateral white stripes on first three segments followed by spots. Hind wing with the costal half nearly pure white.

Hab. Amazons, Santarem (*Bates*), 1 ♂ type. *Exp.* 42 millim.

Sect. II. Hind wing with vein 2 from middle of cell.

889. Antichloris panacea.

Antichloris panacea, Druce, Biol. Centr.-Am., Het. i. p. 68, pl. 8. f. 17 (1884); Kirby, Cat. Het. p. 159.

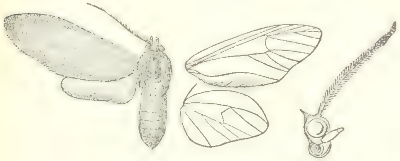

Fig. 204.—*Antichloris panacea*, ♂. 1/1.

♂. Dull cupreous brown; shoulders with large crimson spots; fore coxæ with metallic blue patches; abdomen shot with blue above. Hind wing dirty white, with terminal fuscous band expanding below vein 2.

♀. Hind wing fuscous brown.

Hab. Costa Rica (*Rogers*), 2 ♂, 2 ♀, type, Godman-Salvin Coll. *Exp.* 42 millim.

Genus METHYSIA.

	Type.
Methysia, Butl. Journ. Linn. Soc., Zool. xii. p. 397 (1876).........	*notabilis.*

Proboscis fully developed; palpi upturned; antennæ bipectinate, with moderate branches; tibiæ with the spurs short; abdomen with the 2nd segment somewhat constricted, the terminal segment with lateral tufts. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell; the area below submedian fold in male clothed on underside with smooth white scales, with an elongate patch of hairy scaling on medial part of vein 1. Hind wing narrow in male and aborted, the costal area to median nervure clothed with smooth white scales on upperside and the costa curled over; cell long; veins 2 and 3 from a point before angle; 4 from 5 just before margin; 6, 7 on a long stalk.

890. Methysia notabilis.

Glaucopis notabilis, Wlk. i. 144 (1854); Butl. Ill. Het. i. p. 36, pl. 7. f. 11 (1877); Kirby, Cat. Het. p. 148.

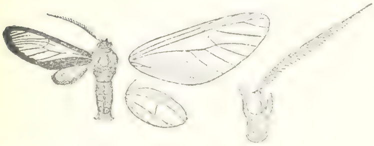

Fig. 205.—*Methysia notabilis*, ♂. 1/1.

Head and abdomen black; thorax above except tegulæ fulvous orange; thorax and abdomen below, and parts of legs, white. Fore wing hyaline, the veins and margins black; the inner area up to submedian fold black above, white below; black streaks in interspaces of terminal area from vein 4 to costa, the streak in discal fold running to cell. Hind wing with the area from costa to median nervure silvery white, the inner area black; underside blackish, with pale streaks.

Hab. Amazons, Para (*Bates*), 1 ♂ type. *Exp.* 26 millim.

Genus PSEUDACLYTIA.

Type

Pseudaclytia, Butl. Journ. Linn. Soc., Zool. xii. p. 409 (1876) ... *opponens.*

Proboscis fully developed; palpi upturned to just above vertex of head; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs moderate; abdomen dorsally clothed with rough hair at base. Fore wing with vein 2 curved from towards angle of cell, 3 from near angle, 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from well before angle; 3 from angle, 4, 5 stalked; 6, 7 from upper angle.

Sect. I. Fore wing with a fold in cell on underside, with a thick fringe of upturned scales covering a longitudinal tuft of very long white scales.

*891. Pseudaclytia umbrica.

Pseudaclytia umbrica, Druce, A. M. N. H. (7) i. p. 208 (1898).

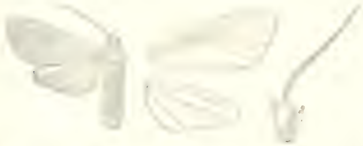

Fig. 206.—*Pseudaclytia umbrica*, ♂. ½.

♂. Ochreous brown; neck yellowish; abdomen orange-yellow with almost conjoined dorsal black patches, the ventral surface whitish. Fore wing slightly suffused and the veins streaked with fuscous. Hind wing fuscous brown, the costal area pale. Underside of fore wing with the ridge of scales rufous.

Hab. Brazil, Cabo (*Forbes*). *Exp.* 28 millim. Type + in Coll. Druce.

Sect. II. Fore wing of male normal.

892. Pseudaclytia opponens.

Pampa opponens, Wlk. xxxi. 100 (1864); Kirby, Cat. Het. p. 156.
Charidea rufogularis, Moeschl. Stett. ent. Zeit. xxxiii. p. 349 (1872); Kirby, Cat. Het. p. 156.

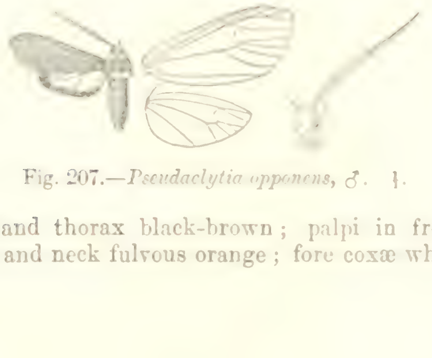

Fig. 207.—*Pseudaclytia opponens*, ♂. ½.

♂. Head and thorax black-brown; palpi in front and frons grey; tegulæ and neck fulvous orange; fore coxæ white; abdomen fuscous suffused with metallic blue, the ventral surface grey. Fore wing fuscous brown. Hind wing hyaline, the veins and terminal area irregularly black shot with blue.

Hab. Amazons, Ega (*Bates*), type; Tunantins, Rio Negro (*Trail*). *Exp.* 30 millim. Type † *rufogularis* in Coll. Staudinger.

Genus ATYPHOPSIS.

	Type.
Atyphopsis, Butl. Trans. Ent. Soc. 1878, p. 49	*modesta.*

Proboscis fully developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; abdomen dorsally clothed with rough hair at base and with small lateral tubercles on 1st segment. Fore wing with vein 3 from angle of cell; 4, 5 strongly stalked; 6 from well below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from angle; 4, 5 shortly stalked; 6, 7 from upper angle.

A. Back of head and medial segments of abdomen orange .... *modesta.*
B. Back of head and medial segments of abdomen pink .. .. *roseiceps.*
C. Head with some yellow between antennæ and above eyes; anal tuft yellowish .... *obscura.*

893. Atyphopsis modesta.

Atyphopsis modesta, Butl. Trans. Ent. Soc. 1878, p. 49; Kirby, Cat. Het. p. 202.

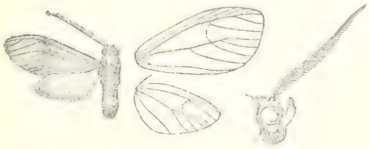

Fig. 208.—*Atyphopsis modesta*, ♂. $\frac{1}{1}$.

♂. Head black, reddish orange on vertex and behind the eyes; thorax grey, with the tegulæ and part of prothorax orange; pectus and coxæ white; abdomen orange, the first two segments grey, the terminal two black; wings semihyaline grey, the veins and margins fuscous. Hind wing paler.

Hab. Amazons, R. Jutahi (*Trail*), 2 ♂, type. *Exp.* 30 millim.

*894. Atyphopsis roseiceps. (Plate XIV. fig. 27.)

Atyphopsis roseiceps, Druce, A. M. N. H. (7) i. p. 408 (1898).

♂. Grey-brown; crimson spots on vertex of head and shoulders; abdomen with the 3rd, 4th, 5th, and 6th segments pink, the last two segments blackish; wings with the interspaces hyaline. Fore wing with the veins, margins, and streaks in cell and submedian interspace brown; the apical area brown.

Hab. Brazil, Rio Janeiro, 1 ♂ type † in Mus. Oxon. *Exp.* 30 millim.

895. **Atyphopsis obscura**, n. sp. (Plate XIV. fig. 7.)

♀. Grey-brown; back of head yellowish; abdomen with the anal tuft yellowish, the ventral surface grey. Fore wing with obscure brownish spots at middle of cell and on discocellulars; traces of a diffused line just beyond the cell angled on vein 4, then slightly incurved; traces of a curved subterminal line. Hind wing pale semihyaline, the apical area and a terminal medial patch fuscous.

Hab. Brazil, Espiritu Santo, 1 ♀ type. *Exp.* 30 millim.

Genus ANAPHLEBIA.

Type
Anaphlebia, Feld. Reis. Nov. p. 1 (1874), non descr. .... *caudatula.*

Proboscis fully developed; palpi upturned, reaching above vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs moderate. Fore wing with vein 3 from near angle of cell; 4, 5 stalked; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell long; vein 2 from well before angle; 3, 4, 5 from angle; 6, 7 from upper angle; 8 from near angle of cell and rudimentary; male with a fold on inner area, the tornus produced to a pointed lobe; veins 3, 4, 5 fringed with long scales on underside.

*896. **Anaphlebia caudatula.**

Anaphlebia caudatula, Feld. Reis. Nov. pl. 102. f. 36 (1874); Kirby, Cat. Het. p. 165.

♂. Head, thorax, and abdomen black; palpi in front, sides of frons, fore coxæ, and slight patches on tegulæ and patagia white; abdomen shot with blue, and with traces of dorsal white line. Fore wing hyaline, the veins and margins black; the inner area very broadly black, and the terminal band expanding very widely on apical area. Hind wing hyaline, the costal area black; a black fascia along median nervure to the black apical area; the terminal black band expanding widely, and with dentate inner edge towards tornus; the inner area and vein 2 black.

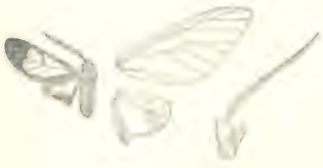

Fig. 209.
Anaphlebia caudatula, ♂. 1/1.

Hab. Amazons, type † in Coll. Rothschild. *Exp.* 24 millim.

Genus SCIOPSYCHE.

Type.
Sciopsyche, Butl. Journ. Linn. Soc., Zool. xii. p. 426 (1876) ...... *tropica.*

Proboscis fully developed; palpi obliquely upturned and reaching vertex of head; frons with a tuft of hair; antennæ bipectinate, with rather long branches dilated at extremity, tapering rather suddenly to apex; tibiæ with the spurs moderate. Fore wing rather long and narrow; vein 3 from near angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9, 10 stalked, 7, 8, 9 from a point towards apex; 11 from cell. Hind wing with the cell long; vein 2 from well before angle; 3, 4, 5 from angle, or 5 separate; 6, 7 from upper angle.

897. Sciopsyche tropica.

Euchromia tropica, Wlk. i. 236 (1854); Kirby, Cat. Het. p. 174.
Sciopsyche cinerea, Butl. Journ. Linn. Soc., Zool. xii. p. 426 (1876); Kirby, Cat. Het. p. 174.

Fuscous black; fore coxæ and pectus with patches of metallic green; abdomen with broad lateral metallic green stripes and sublateral series of white points. Fore wing with the interspaces rather thinly scaled; a metallic green spot below base of median nervure. Hind wing semihyaline, the veins and terminal area broadly and irregularly suffused with fuscous.

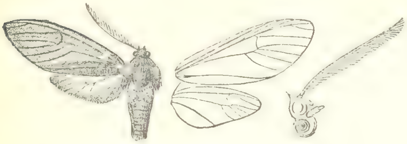
Fig. 210.—*Sciopscyhe tropica*, ♂. 1/1.

Hab. ? Honduras; Colombia, Sta. Marta (*Bouchard*); Brazil, type, Ega, Santarem (*Bates*), Espiritu Santo, type *cinerea*. *Exp.* 36–40 millim.

Genus NAPATA.

	Type.
Napata, Wlk. i. 231 (1854)	*terminalis.*
Diabæna, Feld. Reis. Nov. p. 4 (1874), non descr.	*cincticollis.*
Metriophyla, Butl. Ill. Het. i. p. 43 (1877)	*albiplaga.*

Proboscis well developed; palpi upturned; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked. Hind wing with the cell long; veins 3, 4, 5 from close to angle of cell; 6, 7 from upper angle.

Sect. I. Hind wing of male with the tornus truncate and fringed with long hairs.

898. Napata fenestrata.

Læmocharis fenestrata, Druce, A. M. N. H. (6) xviii. p. 30 (1896).

♂. Black-brown with an olive tinge; neck with orange ring; shoulders striped with orange; abdomen with orange lateral fasciæ on 4th to 6th segments, on the last two extending subdorsally; the ventral surface orange except terminal segments. Fore wing with olive streaks in interspaces of basal half; a short hyaline streak below basal part of costa, and a wedge-shaped mark in end of cell; four small spots beyond the cell between veins 3 and 7, the two lower placed nearer termen. Hind wing with the basal half hyaline, with the veins black, the terminal area black; the fringe of hair at tornus ochreous.

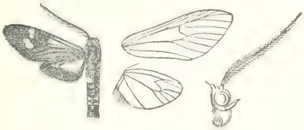
Fig. 211.
Napata fenestrata, ♂. 1/1.

Hab. Brazil, Casa Branca, 1 ♂ 1 ♀. *Exp.* 24 millim. Type† in Coll. Druce.

SECT. II. Hind wing of male without fringe at tornus.

A. Fore wing orange, with black and white terminal streaks .... *walkeri.*

B. Fore wing with the ground-colour black.
  - *a.* Fore wing with oblique crimson radial and subapical bands.
    - a^1. Hind wing with subterminal crimson spot .... *splendida.*
    - b^1. Hind wing without crimson spot .... *elegans.*
  - *b.* Fore wing with oblique medial crimson band produced in cell towards base .... *unifascia.*
  - *c.* Fore wing without crimson bands.
    - a^1. Fore wing with crimson fasciæ in and below cell... *viridis.*
    - b^1. Fore wing with orange fascia on vein 1 and oblique postmedial band.
      - a^2. Fore wing with the orange band almost touching costa and termen and produced along costa towards base .... [illegible]
      - b^2. Fore wing with the orange band well separated from costa and termen and not produced along costa towards base .... *castra.*
    - c^1. Fore wing without orange fascia on vein 1 or oblique postmedial band.
      - a^2. Abdomen with the terminal segments orange .... *chalybea.*
      - b^2. Abdomen with the terminal segments not orange.
        - a^3. Fore wing with metallic blue spot in end of cell.
          - a^4. Fore wing with four blue streaks beyond the cell .... *quadristrigata.*
          - b^4. Fore wing without blue streaks beyond the cell .... *albiplaga.*
        - b^3. Fore wing without blue spot in end of cell.
          - a^4. Back of head without scarlet.
            - a^5. Underside of fore wing with some blue streaks beyond the cell .... [illegible]
            - b^5. Underside of fore wing without blue streaks beyond the cell.
              - a^6. Fore wing without prominent hyaline streaks in and below cell.
                - a^7. Fore wing with white patches at apex and tornus .... *rubidonota.*
                - b^7. Fore wing with the cilia only white at apex .... *terminalis.*
              - b^6. Fore wing with prominent hyaline streaks in and below cell .... *leucotelus.*
          - b^4. Back of head scarlet.
            - a^5. Fore wing without orange or white spots.
              - a^6. Anal tuft black.
                - a^7. Abdomen with dorsal blue line; fore wing with some blue at base... *guatemalena.*
                - b^7. Abdomen and fore wing wholly shot with blue .... *munda.*
              - b^6. Anal tuft crimson .... *lena.*
            - b^5. Fore wing with orange spots in and beyond end of cell........ *cincticollis.*
            - c^5. Both wings with large white spots below end of cell .... *quadrimaculata.*

899. Napata walkeri.

Evius walkeri, Druce, A. M. N. H. (6) iv. p. 86 (1889); id. Biol. Centr.-Am., Het. ii. p. 365, pl. 73. f. 21; Kirby, Cat. Het. p. 197.

Orange-yellow; palpi banded black and white; frons white; antennæ black, the basal joint white; legs striped black and white; abdomen with the anal segment striped and the ventral surface banded black and white. Fore wing with black and white stripes on terminal area, shorter towards tornus.

Hab. Costa Rica (*Underwood*), 2 ♂ 1 ♀; Panama, Taboga I. (*J. J. Walker*), 1 ♀, type, Godman-Salvin Coll. *Exp.* 36 millim.

900. Napata splendida.

Charidea splendida, Herr.-Schäff. Aussereur. Schmett. f. 232 (1854); Kirby, Cat. Het. p. 161.
Entomis eucyane, Feld. Reis. Nov. pl. 102. f. 14 (1875), nec f. 16.
Sphinx argentiflua, Martin, Psyche, pl. 29. ff. 82, 83 ined.

♂. Black; palpi in front, head, tegulæ, patagia, thorax, and legs with patches of metallic blue; fore coxæ white; abdomen suffused with blue and with dorsal and lateral series of blue spots, the ventral surface with narrow white stripe. Fore wing with short metallic blue streak below base of costa, and a streak above vein 1 extending to middle; an oblique bright crimson band from subcostal nervure across end of cell to near tornus; a short oblique band across apical area from vein 8 to 5. Hind wing with diffused metallic blue on median nervure and vein 1; a crimson spot beyond lower angle of cell between veins 2 and 4. Underside of both wings with the basal area shot with blue.

Ab. 1. Fore wing with the band across apical area extending nearly to termen at vein 3.

Ab. 2. Hind wing with the subterminal crimson spot almost obsolete above.

Hab. Colombia; Venezuela; Cayenne, 1 ♂; Brazil, Theresopolis, 2 ♂; Bolivia, Songo, 1 ♀. *Exp.* 44 millim. Type † in Coll. Staudinger.

901. Napata eucyane.

Cyanopepla eucyane, Feld. Reis. Nov. pl. 102. f. 16 (1874); Kirby, Cat. Het. p. 162.

♂. Black-brown; head, tegulæ, patagia, and thorax with patches of metallic blue; palpi in front, coxæ, and streaks on legs white; abdomen suffused with blue, with dorsal and lateral series of blue spots and fine segmental rings; the ventral surface with broad white stripe. Fore wing with metallic blue streaks below basal half of costa and from base of inner margin to above middle of vein 1; an oblique crimson band from subcostal nervure across end of cell to near tornus; a short oblique band across apical area from vein 8 to 5. Hind wing with large metallic blue patch on inner area below the cell. Underside of fore wing with metallic blue streaks on median nervure and beyond the cell; hind wing with the basal area metallic blue, extending below the cell to near tornus; a discocellular blue spot.

Hab. Brazil (*Dohrn, Mathew*), Zeller Coll. *Exp.* 44-48 millim.

*902. **Napata unifascia.** (Plate XIV. fig. 15.)

Napata unifascia, Schaus, J. N. Y. Ent. Soc. vi. p. 140 (1898).

♂. Black; metallic blue patches on frons, tegulæ, patagia, thorax above, and pectus; coxæ white; abdomen suffused with metallic blue above; a ventral white stripe. Fore wing with metallic blue spot at base of costa; the inner area broadly blue to beyond middle; a broad oblique crimson medial band from subcostals to above tornus, produced to a point in cell near base and with its outer edge rather irregular. Hind wing brilliant blue, the margins narrowly black. Underside of fore wing with blue patch beyond the crimson band; hind wing with the apical area broadly black, the edge of blue area very irregular.

Hab. Ecuador, Chimbo (*M. de Mathan*), type ♀ in Coll. Schaus. *Exp.* 32 millim.

903. **Napata iridis**, n. sp. (Plate XIV. fig. 10.)

Black; head, thorax, and abdomen mostly suffused with brilliant blue; palpi in front, stripes on legs, and ventral stripe on abdomen white. Fore wing with blue streaks below costa and above inner margin; a crimson fascia below the cell and vein 2 from near base to near termen, and elongate spots in end of cell and above base of vein 2, the latter irrorated with black. Hind wing suffused with brilliant blue to near termen. Underside with slight whitish streak below cell of each wing.

Hab. Bolivia, Chaco (*Garlepp*), 1 ♂ type, ♀ in Coll. Staudinger. *Exp.* 34 millim.

904. **Napata jynx.**

Calosoma jynx, Geyer, Zutr. iv. p. 39 (1832), ff. 781, 782.

♂. Black; frons, vertex of head, tegulæ, patagia, thorax, and legs with patches of metallic blue; abdomen with dorsal blue stripe and some blue scales at sides. Fore wing with orange fascia on vein 1 not reaching termen and tapering to each end; a large oblique somewhat wedge-shaped patch from just below costa beyond middle, sending a tooth inwards below costa and with its rounded extremity on termen between veins 2 and 4; cilia white at apex. Underside of fore wing with short metallic blue streak below cell; hind wing with short streak in cell and two spots beyond it.

Hab. Brazil, Castro Paraña, 1 ♂. *Exp.* 44 millim.

905. **Napata castra**, n. sp. (Plate XIV. fig. 14.)

♂. Black; frons, tegulæ, patagia, thorax, and legs with patches of metallic blue-green; abdomen with dorsal green stripe and some green at sides. Fore wing with metallic green stripe below basal half of costa; an orange fascia on vein 1 extending to beyond middle and tapering to each end; an oblique postmedial patch with sinuous edges from below costa to near middle of termen; cilia white at apex and above tornus. Hind wing with the cilia white, sometimes black below apex. Underside of fore wing with blue patch in base of cell; hind wing with blue patch in base of cell and on costa and two spots on discocellulars.

Hab. Brazil, Castro Paraña, type. *Exp.* 38 millim.

906. **Napata chalybea.**

Uranophora chalybea, Hübn. Zutr. ex Schmett. iii. p. 14, ff. 439, 440 (1827).

♂. Head, thorax, and abdomen metallic blue-green slightly mixed with black; base of palpi, head behind eyes, and neck below orange-fulvous; abdomen with the last four segments orange-fulvous, extending to 5th on dorsum. Fore wing with metallic blue-green streaks below costa, in and beyond cell, and short streaks on basal inner area. Hind wing metallic blue-green, shading to brilliant blue on terminal area.

Hab. Cuba; Jamaica (*Mathew*), 1 ♂. *Exp.* 36 millim.

907. **Napata quadristrigata**, n. sp. (Plate XIV. fig. 8.)

♂. Blue-black; palpi in front, basal joint of antennæ, and fore coxæ white; head, antennæ, tegulæ, patagia, thorax, and legs largely marked with brilliant metallic blue; abdomen with dorsal, lateral, and sublateral series of blue spots and fine ventral white streak. Fore wing with metallic blue streaks below base of costa and on vein 1; a patch in end of cell; a postmedial series of four streaks beyond the cell and one on vein 1; an apical white patch. Hind wing with apical white patch. Underside of fore wing with blue streak at base, patch in end of cell, and two spots beyond the cell; hind wing with streaks at base, in end of cell, and on inner margin, and two spots beyond the cell.

♀ without white on palpi, basal joint of antennæ, and coxæ.

Hab. W. Indies, St. Lucia, Dominica, 1 ♂ 4 ♀ (*W. H. Eliott*), type. *Exp.* 36 millim.

908. **Napata albiplaga.**

Euchromia albiplaga, Wlk. i. 218 (1854); Kirby, Cat. Het. p. 163.
Charidea apicalis, Herr.-Schäff. Aussereur. Schmett. f. 236 (1854); Butl. Ill. Het. i. p. 43, pl. 8. f. 7; Druce, Biol. Centr.-Am., Het. i. p. 73.
Heliura lelex (♂), Druce, P. Z. S. 1890, p. 495; Kirby, Cat. Het. p. 164.

♂. Blue-black; palpi and basal joint of antennæ white in front;

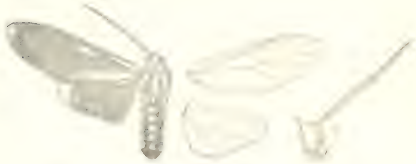

Fig. 212. *Napata chalybea*, ♂. 1/1

head, tegulæ, a patch on thorax, and stripes on patagia and legs metallic blue; coxæ and stripes on mid and hind tibiæ white; abdomen with dorsal and lateral series of metallic blue spots; a ventral white fascia. Fore wing with metallic blue streak below base of costa; a broader streak below median nervure to beyond middle; the apex white. Hind wing with the apex and the cilia from vein 2 to tornus white. Underside of fore wing with blue streak on base of median nervure, patch in end of cell, and two spots beyond the cell; hind wing with patch in cell and two spots beyond it.

♀ without white on palpi, basal joint of antennæ, and legs.

Hab. Mexico, Vera Cruz (*H. H. Smith*); Nicaragua (*Belt*); Costa Rica (*Zürcher*); Panama (*Champion, Ribbe*); Godman-Salvin Coll.; Venezuela; Ecuador; Brazil. *Exp.* 40 millim. Type † *lelex* (♂) is a ♀ in Coll. Druce.

909. Napata lelex. (Plate XIV. fig. 28.)

Heliura lelex, Druce, P. Z. S. 1890, p. 495 (♀); id. Biol. Centr.-Am., Het. ii. p. 353; Kirby, Cat. Het. p. 164.

Head, thorax, and abdomen black; head, antennæ, tegulæ, shoulders, patagia, thorax, and legs with patches of metallic blue; abdomen with dorsal blue spots and lateral and ventral bands. Fore wing black-brown, with metallic blue spot at base of costa and streak at base of vein 1, the margin and cilia at apex white. Hind wing black shot with brilliant blue; an apical white patch. Underside of both wings with patches of blue in cell and two spots beyond the cell; hind wing with streak on inner area.

Hab. Guatemala (*Champion*), 2 ♂, Godman-Salvin Coll.; Panama, Chiriqui; Colombia, 1 ♂; Venezuela; Ecuador; type † ♀ in Coll. Druce. *Exp.* 46 millim.

910. Napata rabdonota, n. sp. (Plate XIV. fig. 11.)

♂. Blue black; palpi and basal joint of antennæ in front, and coxæ white; head, tegulæ, patagia, thorax, and legs largely marked with brilliant metallic blue; abdomen with dorsal and lateral blue stripes and white ventral stripe. Fore wing with metallic blue streak below base of costa, and broader fascia on vein 1 extending to beyond middle; white patches at apex and tornus. Hind wing with the cilia white at apex. Underside with metallic blue patches in cell of fore wing and on base of costa of hind wing.

Hab. W. Indies, Dominica (*W. H. Eliott*), 2 ♂, type. *Exp.* 28 millim.

911. **Napata terminalis.** (Plate XIV. fig. 12.)

Euchromia terminalis, Wlk. i. 231 (1854); Kirby, Cat. Het. p. 156.

♂. Greyish black; head and thorax with patches of metallic blue; palpi in front, frons, spots on shoulders, and coxæ white; abdomen with brilliant blue at base and sides; a slight dorsal pale line, the first five segments with ventral white patches. Fore wing with some metallic blue at base; slight traces of hyaline patches in and below cell; cilia white at apex. Hind wing blue-black; cilia whitish towards tornus; inner area white below.

♀ without white on coxæ or abdomen below.

Hab. Brazil, Pernambuco, 1 ♂, 1 ♀, type. *Exp.* 30 millim.

912. **Napata leucotelus.**

Napata leucotelus, Butl. Journ. Linn. Soc., Zool. xii. p. 409 (1876); Druce, Biol. Centr.-Am., Het. i. p. 66, pl. 7. f. 24; Kirby, Cat. Het. p. 156.

♂. Blue-black; head and thorax suffused in parts with brilliant metallic blue; palpi in front and upper part of frons white; coxæ white; abdomen with some brilliant blue at base and on sides, a greenish dorsal line; the first five segments with ventral white patches. Fore wing with some metallic blue at base; hyaline streaks below base of costa, in cell and below it to angle; cilia white at apex. Hind wing with the costal area greyish; cilia white at tips towards tornus; inner area white below.

♀. Coxæ and abdomen below without white patches.

Hab. Mexico, Presidio (*Forrer*), Yucatan (*Gaumer*), Jalapa (*Hoege*), Vera Cruz, Tabasco (*H. H. Smith*), Cordova (*Trujillo*); Guatemala (*Champion*); Costa Rica (*Rogers*); Honduras (*Gaumer*), Godman-Salvin Coll., type; Venezuela. *Exp.* 26 millim.

913. **Napata guatemalena.**

Napata guatemalena, Druce, Biol. Centr.-Am., Het. i. p. 66, pl. 72. f. 6 (1884); Kirby, Cat. Het. p. 156.

♂. Black; palpi scarlet except at tips; vertex of head and neck scarlet; frons, tegulæ, sides of thorax, and legs largely metallic blue; coxæ white; abdomen with dorsal and lateral metallic blue lines; a ventral series of white patches; wings bluish black. Fore wing with some metallic blue at base; cilia white at apex. Hind wing with the cilia whitish towards tornus, which is whitish below.

♀ without white on coxæ and abdomen below.

Hab. Guatemala (*Champion*), 1 ♂, 1 ♀, type, Godman-Salvin Coll. *Exp.* 24 millim.

914. Napata munda. (Plate XIV. fig. 9.)

Ardonea munda, Wlk. vii. 1680 (1856); Kirby, Cat. Het. p. 287.

♀. Black shot with bright blue-green; palpi except 3rd joint, throat, and vertex of head crimson; both wings with the cilia white except at middle.

Hab. Haiti (*Tweedie*), 1 ♀ type. *Exp.* 38 millim.

*915. Napata lena.

Metriophyla lena, Schaus, P. Z. S. 1892, p. 277; id. Am. Lep. pl. i. f. 24.

♂. Black; basal joint of palpi, back of head, and neck crimson; frons white except at middle; coxæ white; legs striped with white; abdomen slightly shot with blue, the anal tuft crimson; a ventral white stripe. Fore wing with the basal half of costa white; the apex and tips of cilia white. Hind wing shot with brilliant black; the apical area and parts of termen and cilia white.

Hab. Peru. *Exp.* 40 millim. Type † in Coll. Schaus.

*916. Napata cincticollis.

Dahana cincticollis, Feld. Reis. Nov. pl. 103. f. 1 (1874); Kirby, Cat. Het. p. 904.

♂. Head and thorax black; frons white at sides; back of head, neck, and patches on shoulders crimson; patagia with orange stripes; mesothorax with orange points; coxæ white; abdomen brilliant metallic blue above, the ventral surface banded with white. Fore wing black, with slight orange streaks on basal half of subcostal nervure and veins; a quadrate orange spot in end of cell and a rounded subterminal spot between veins 3 and 5. Hind wing with hyaline fascia below the cell and between bases of veins 2 and 3. Underside with brilliant blue in and below cell of fore wing and on whole of hind wing except apex.

Hab. Colombia, Bogota. *Exp.* 36 millim. Type † in Coll. Rothschild.

917. Napata quadrimaculata.

Enagra quadrimaculata, Moschl. Stett. ent. Zeit. xxxiii. p. 349 (1872); Verh. zool.-bot. Ges. Wien, xxvii. pl. ix. f. 24; Kirby, Cat. Het. pp. 179, 918.

Black-brown; frons and coxæ white; back of head and 1st joint of palpi scarlet; base of patagia metallic green; legs striped with white; abdomen sometimes with some green at base, the ventral surface white. Fore wing with metallic green below base of costa and above base of inner margin; a large elliptical white spot below end of cell between veins 2 and 3 and extending at middle just below vein 2; apex white. Hind wing with green streak on vein 1 to beyond middle; an eliptical white spot below end of cell; cilia white at apex.

Hab. Surinam; Cayenne (*Bouchard*), 1 ♂. *Exp.* 30 millim. Type † in Coll. Staudinger.

B. Palpi not reaching vertex of head.

918. Napata broadwayi.

Syntomeida broadwayi, Schaus, Journ. N. York Ent. Soc. iv. p. 130 (1896).

♂. Black; frons, tegulæ, patagia, and shoulders with blue-white spots; sides of metathorax, fore coxæ, and 1st joint of tarsi white; fore and mid tibiæ with crimson patches on inner side; metathorax with brassy-green dorsal patch; abdomen with medial and lateral brassy-green patches on 1st segment and broad bands on the others; a large ventral white patch on basal segments; wings tinged with green. Fore wing with small hyaline spots in and below middle and in upper angle of cell; small spots beyond upper angle above and below vein 6; a spot below vein 4 and speck above it. Hind wing with hyaline speck below base of cell and streak on inner area and spot towards upper end of cell.

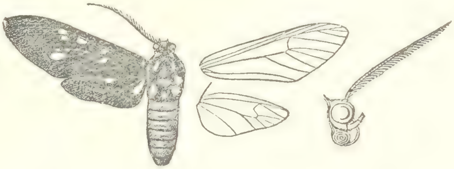

Fig. 213.—*Napata broadwayi*, ♂. $\frac{1}{1}$.

Hab. Trinidad, 1 ♂. *Exp.* 46 millim. Type † in Coll. Schaus.

Genus PATRELIURA, nov.

Type, *P. capys*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with very short branches dilated at extremity; tibiæ with the spurs short; abdomen dorsally clothed with rough hair at base; male with tufts of long hair from edge of stigmata. Fore wing rather narrow; vein 3 from near angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4 on a long stalk; 5 from well above angle; 6, 7 from upper angle.

919. Patreliura capys.

Sphinx capys, Cram. Pap. Exot. i. pl. 56. E (1775); Kirby, Cat. Het. p. 164.

Heliura lacteinota, Butl. Journ. Linn. Soc., Zool. xii. p. 417 (1876); Kirby, Cat. Het. p. 164.

Head and thorax dark olive-brown; palpi orange at base; a band between antennæ, two spots on back of head and neck orange; tegulæ edged with orange, patagia with grey; legs streaked with grey; abdomen bluish fuscous, greyish fuscous below. Fore wing dark olive-brown; the veins, cell, and submedian interspace streaked with yellowish; a large white patch on apical area. Hind wing hyaline, the veins and terminal area broadly and irregularly bluish fuscous.

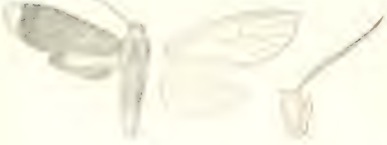
Fig. 214.—[illegible]

Hab. Br. Guiana; Surinam; Amazons, R. Jurua (*Trail*), Tapajos, Ega (*Bates*), type *lacteinota*. *Exp.* 34 millim.

Genus LYMIRE.

	Type.
Lymire, Wlk. ii. 489 (1854)	*melanocephala.*
[illegible], Butl. Journ. Linn. Soc., Zool. xii. p. 408 (1876)	———

Proboscis fully developed; palpi upturned, reaching above vertex of head; antennæ of male bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate. Fore wing narrow; vein 3 from near angle of cell; 4, 5 shortly stalked; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from long before angle of cell; 3 from angle; 4, 5 on a long stalk; 6, 7 from upper angle; 8 sometimes present as an aborted fragment from upper angle.

A. Fore wing black; thorax wholly orange .... *metamelas.*
B. Fore wing and thorax brown .... *strigivenia.*
C. Fore wing grey or white; thorax orange in front only.
  a. Fore wing grey, the costa whitish.
    *a*¹. Abdomen yellow below .... *melanocephala.*
    *b*¹. Abdomen whitish below .... *eduardsi.*
  b. Fore wing white, with dark-grey fascia on inner margin .... ———

920. Lymire metamelas.

Glaucopis metamelas, Wlk. i. 145 (1854); Butl. Ill. Het. i. p. 39, pl. 7. f. 10; Kirby, Cat. Het. p. 156.

♂. Black; back of head and thorax orange. Fore wing with slight semihyaline streaks in the interspaces. Hind wing hyaline; the veins, termen, and whole inner area black.

Fig. 215.—*Lymire metamelas*, ♂. ½.

Hab. Amazons, Para (*Bates*), 3 ♂, type. *Exp.* 28 millim.

*921. **Lymire strigivenia.** (Plate XIV. fig. 17.)

Lymire strigivenia, Druce, A. M. N. H. (7) i. p. 407 (1898).

♂. Dark brown; frons at sides, pectus, legs, and ventral surface of abdomen grey-brown. Fore wing grey-brown, the veins and streaks in discoidal and submedian folds black-brown. Hind wing semihyaline, with clearer hyaline fascia from base above and below median nervure to termen; the costa and termen brown; the inner area brown, leaving slight hyaline streaks.

Hab. Cayenne, 1 ♂ type † in Mus. Oxon. *Exp.* 28 millim.

922. **Lymire melanocephala.** (Plate XIV. fig. 19.)

Lymire melanocephala, Wlk. ii. 490 (1854); Kirby, Cat. Het. p. 204.

♀. Head black; palpi yellow in front; tegulæ, shoulders, throat, and basal parts of legs bright yellow, the rest of thorax dove-grey; abdomen blue-black, purplish grey towards base, the extremity and ventral surface yellow. Fore wing dove-grey, the costa whitish. Hind wing semihyaline, the veins and costal and terminal areas suffused with pale brown.

Hab. Jamaica, (*Gosse*) 1 ♀ type, (*Martin*) 1 ♀. *Exp.* 48 millim.

923. **Lymire edwardsi.** (Plate XIV. fig. 18.)

Scepsis edwardsi, Grote, Pap. i. p. 4 (1881); Kirby, Cat. Het. p. 175.

♂. Pale purplish grey, frons and antennæ bluish; palpi, vertex of head, neck, and throat orange; abdomen suffused with blue-green towards extremity, the ventral surface whitish. Fore wing with the costa whitish. Hind wing hyaline, the veins, costal area, and termen brownish.

Hab. Florida, Grote Coll., 2 ♂, type. *Exp.* 40 millim.

Larva. Dyar, Insect-Life, ii. p. 361.

Eggs smooth, hemispherical, base flattish.

Larva (mature). Head brownish red, the triangular plate, mouth, and palpi white, with a black band above the plate; jaws and eyes black; cervical spot blackish, bisected; 1st somite, which is much contracted, with 2 small warts at spiracle; somites 4–11 with a series of warts on subdorsal space anteriorly; subdorsal, suprastigmatic, substigmatic, and two subventral series, the upper small; somites 2, 3 with only one subventral series; somite 12 with the upper warts fewer and with a row of small warts on anal plate. Body whitish, with blackish shade on dorsum; subdorsal and traces of stigmatic yellowish bands, the former with faint orange patch above it on somites 4 to 9 and 11; somite 3 with pinkish-white band with dark anterior edge across subdorsal space posteriorly; somite 4, from 1st row of warts arise small pencils of brownish-red plumed hairs, and sometimes smaller pencils from the 2nd row; the other warts with yellow bristles, some overhanging head. Prolegs tipped with brown. Length 30 millim. Food-plant, *Ficus pedunculata*.

Cocoon of silk and hair.

Pupa. Cylindrical, flattened somewhat in front, dorsum slightly depressed behind thorax; abdominal segments fixed; body punctured and wing-cases creased; cremaster with short hooks and surrounded by similar hooks on the last segment extending onto dorsum in transverse rows. Colour red-brown. Length 14 millim.

924. Lymire albipennis. (Plate XIV. fig. 20.)

Echeta albipennis, Herr.-Schäff. Corresp.-Blatt zool.-min. Ver. Regensb. xx. p. 117 (1866); Kirby, Cat. Het. p. 197.

♀. Head, thorax, and abdomen dark blue-grey; palpi in front and on inner side, tegulæ, shoulders, part of patagia, throat, and fore coxæ orange; rest of patagia white; abdomen tinged with blue-green towards extremity, the ventral surface white. Fore wing white, with dark grey fascia on inner margin from near base to tornus. Hind wing semihyaline, the veins, costal area, and termen fuscous. Underside of fore wing suffused with fuscous and with a dark grey fascia on costa.

Hab. Cuba (*Ruiz*), 1 ♀. *Exp*. 40 millim. Type † in Coll. Staudinger.

Genus LOXOZONA, nov.

Type, *L. lanceolata*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs moderate; build rather stout; abdomen with slight lateral tubercles on 1st segment and dorsally clothed with rough hair at base. Fore wing with veins 3, 4, 5 from angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from angle; 4, 5 on a long stalk; 6, 7 from upper angle; 8 absent or rudimentary.

A. Fore wing black, with oblique white postmedial bands ...... *lanceolata*.
B. Fore wing red-brown, without band .... *acuminata*.

925. Loxozona lanceolata.

Josia lanceolata, Wlk. ii. 307 (1854); Kirby, Cat. Het. p. 402.

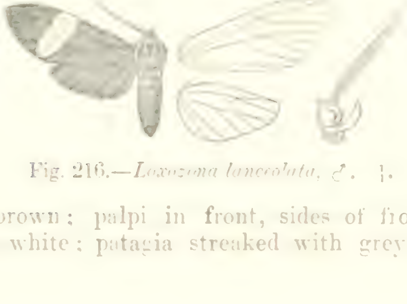

Fig. 216.—*Loxozona lanceolata*, ♂. 1/1.

♂. Black-brown; palpi in front, sides of frons, and points above the eyes white; patagia streaked with grey, the legs with white; abdomen tinged with blue and with paired sublateral white fasciæ. Fore wing with oblique white band from just below costa in and beyond end of cell to just above tornus. Hind wing with whitish fascia on underside on inner area.

Hab. AMAZONS, Para (*Bates*), 1 ♂ type. *Exp.* 40 millim.

*926. Loxozona acuminata.

Pampa acuminata, Wlk. vii. 1629 (1856); Kirby, Cat. Het. p. 173.
Sychesia hartmanni, Schaus, P. Z. S. 1892, p. 280; id. Am. Lep. pl. iii. f. 10.

♂. Dark red-brown; pectus fulvous orange; abdomen with the dorsal surface blackish, the terminal segment and lateral bands orange, the latter partly interrupted by the dentate edges of dorsal black area; ventral surface pale brown. Fore wing dark red-brown, the basal area suffused with purplish brown; a discoidal lunule; a dark sinuous postmedial line retracted at vein 3 to the cell. Hind wing dark purplish brown.

Hab. BRAZIL. *Exp.* 36 millim. Type † in Mus. Oxon.; *hartmanni* in Coll. Schaus.

Genus HORAMA.

	Type.
Horama, Hübn. Verz. p. 124 (1827)	*pretus.*
Mastigocera, Harris, Am. Journ. Sci. xxxvi. pp. 289, 315 (1839)	*pretus.*
Phyllæcia, Guér. Icon. R. Anim., Ins. p. 504 (1844)	*plumipes.*
Callicarus, Grote, Proc. Ent. Soc. Phil. vi. p. 182 (1867)	*pennipes.*
Drucea, Kirby, Cat. Het. p. 130 (1892)	*œdippus.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching vertex of head, the 3rd usually porrect; antennæ usually minutely serrate and very much dilated for a short distance beyond middle, or bipectinate with short branches; legs very long, the spurs moderate; abdomen with lateral tubercles on 1st segment. Fore wing long and narrow; vein 3 from well before angle of cell; 4, 5 separate at origin; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the cell long; veins 2 and 4 usually from angle, 3 from 2 just before termen; 5 curved from below angle of discocellulars; 6, 7 from upper angle.

SECT. I. Distal half of hind tibiæ with three fringes of very long hair, the 1st joint of tarsus fringed on each side with hair.

A. Antennæ of male bipectinate, with very short branches dilated distally; palpi with the 3rd joint short and upturned.
 a. Hind wing orange with the terminal area brown (♀) ... *panthalon.*
 b. Hind wing deep fuscous brown ... *texana.*

927. Horama panthalon. (Plate XV. fig. 9.)

Zygæna panthalon, Fabr. Ent. Syst. iii. 1. p. 405 (1793); Kirby, Cat. Het. p. 131.
Mastigocera tibialis, Butl. Journ. Linn. Soc., Zool. xii. p. 373 (1876); Kirby, Cat. Het. p. 130.

♀. Head fulvous orange; antennæ black, orange at tips; patagia streaked with black; thorax with black patch; pectus with patches of black and white; fore and mid femora black in front; tibiæ black at extremity; abdomen black with orange bands; a dorsal white patch on 1st segment, and ventral bands on 2nd and 3rd segments. Fore wing deep red-brown, with white point at base of costa. Hind wing orange, with red-brown terminal band wide at costa, tapering to tornus, and with irregularly dentate inner edge.

Hab. Haiti (*Tweedie*), 2 ♀, type *tibialis*; Venezuela, 2 ♀. *Exp.* 36 millim. Type in Mus. Copenhagen examined by Dr. Aurivillius.

928. Horama texana.

Callidrula texana, Grote, Proc. Ent. Soc. Phil. vi. p. 184 (1867); Druce, Biol. Centr.-Am., Het. i. p. 49; Kirby, Cat. Het. p. 129.

Head, thorax, and abdomen blackish; antennæ orange-yellow at tips; palpi, frons, and a spot between antennæ yellow, the frons with a black stripe; tegulæ and thorax with yellow spot, patagia striped with yellow; pectus black and orange, with yellow patches; fore and mid legs black, with orange stripes on outer side of tibiæ and spots on fore coxæ; hind tibiæ with the basal half and tarsi orange, the distal half of tibiæ black; abdomen banded with orange, the 1st segment with dorsal white patch, and the 2nd and 3rd with ventral white bands. Wings deep fuscous brown; fore wing with white point at base of costa.

Fig. 217. *Horama texana*, ♂. 1/1.

Hab. Texas (*Grote*); Mexico, Jalapa (*Hoege*), Milpas (*Forrer*), Godman-Salvin Coll.; Honduras. *Exp.* 34 millim.

B. (*Phyllæcia*). Antennæ minutely serrate; palpi with the 3rd joint longer and porrect.
  a. Abdomen and hind tibiæ orange and black .... *œdippus*.
  b. Abdomen and hind tibiæ black and white.
    a^1. Wings without hyaline streaks .... *plumipes*.
    b^1. Wings with hyaline streaks below the cell .... *pennipes*.

929. Horama œdippus.

Mastigocera œdippus, Boisd. Lép. Guat. p. 81 (1870); Druce, Biol. Centr.-Am., Het. i. p. 49, pl. 6. f. 19; Kirby, Cat. Het. p. 130.

Head, thorax, and abdomen black; palpi below, spots on frons and between antennæ, antennæ below and at tips yellow; tegulæ with paired white points; patagia, meso- and metathorax edged with yellow; neck, patches on pectus, coxæ and fore and mid tibiæ and tarsi yellow; hind tibiæ and tarsi yellow, the distal half of tibiæ black; abdomen with white band on 1st segment, the other segments with narrow yellow bands, the ventral surface yellow. Wings purplish fuscous; hind wing with the costa yellowish.

Hab. Mexico, Guerrero (*H. H. Smith*), Yucatan (*Gaumer*); Guatemala (*Champion*): Godman-Salvin Coll. *Exp.* 42 millim.

*930. Horama pennipes.

Callicarus pennipes, Grote, Proc. Ent. Soc. Phil. vi. p. 182 (1867); Kirby Cat. Het. p. 129.

♂. Black; palpi white below; frons with white lines in front of eyes, a white point between antennæ; gulæ orange; tegulæ with two pairs of white points; shoulders with yellow spots; patagia streaked with white; pectus with yellow spots; coxæ and streaks on tibiæ whitish; hind tarsi white at extremity; abdomen with the lateral tubercles of 1st segment white with a yellow spot; a dorsal series of white points, obsolescent on terminal segments; ventral surface white; a lateral series of white points, with yellow spots below the first two. Fore wing fuscous black, with a few white scales at base; a semihyaline streak below median nervure, a slight hyaline streak in lower end of cell, and hyaline spots between base of veins 2 and 4. Hind wing with semihyaline streak below median nervure. Underside of fore wing with fine white line below basal half of costa; hind wing with two or three faint subcostal lines; cilia narrowly white.

Hab. Cuba, Coll. Staudinger. *Exp.* 25 millim. Type in Mus. Philadelphia Ent. Soc.

931. Horama plumipes.

Sphinx plumipes, Drury, Ill. Ex. Ent. ii. pl. 27. f. 3 (1773); Butl. Ill. Het. i. p. 25, pl. 8. f. 2; Kirby, Cat. Het. p. 129.

Phyllœcia punctata, Guér. Icon. R. Anim., Ins. p. 504 (1844); Kirby, Cat. Het. p. 129.

Horama jalapensis, Neum. Ent. Am. vi. p. 63 (1890); Kirby, Cat. Het. p. 131.

Head, thorax, and abdomen purplish or greenish black; palpi towards tips, a spot between antennæ, a line behind eyes, spots on shoulders, tegulæ, patagia, metathorax, pectus, and coxæ white; fore and hind tibæ with some white on outer side; hind legs with the base of tibiæ and extremity of tarsus white; abdomen with

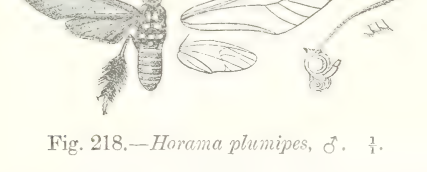

Fig. 218.—*Horama plumipes*, ♂. ½.

dorsal, subdorsal, and lateral white spots on 1st segment, the 2nd segment with dorsal, lateral, and sublateral spots, the other segments dorsally banded with white, and the 3rd segment with sublateral white spots. Wings black-brown; fore wing with two white points at base.

Hab. Mexico, Jalapa (*Trujillo*), Yucatan (*Gaumer*); Honduras; Guatemala (*Champion*); Nicaragua (*Belt*): Godman-Salvin Coll. *Exp.* 40 millim.

Sect. II. Hind tibiæ with fringe of long hair on each side at extremity, the tarsal joints fringed with hair above, diminishing distally; hind wing with veins 2 and 4 shortly stalked; palpi with the 3rd joint short and upturned.

932. Horama clavipes.

Mastigocera clavipes, Boisd. Lép. Guat. p. 81 (1870); Druce, Biol. Centr.-Am., Het. i. p. 49, pl. 6. f. 20; Kirby, Cat. Het. p. 130.

♀. Head, thorax, and abdomen orange-yellow; antennæ black, white at tips; palpi with the 3rd joint black; frons and a spot between antennæ metallic blue; tegulæ black and blue in front; patagia edged with black; vertex of thorax black; pectus black and blue, with orange patches; coxæ and femora black, with metallic blue patches; tibiæ and tarsi orange, with black band at end of tibiæ, mid and hind tarsi black at extremities; abdomen with black bands expanding on dorsum and enclosing a series of white spots, white and blue patches on lateral tubercles of 1st segment, the ventral surface mostly black and blue. Fore wing yellow-brown with black and blue spot at base, and suffused with fuscous which is deeper on terminal area. Hind wing black, with yellow on basal and costal areas interrupted by black streaks.

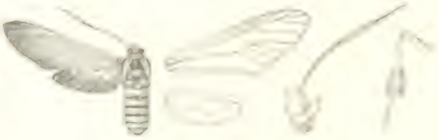

Fig. 219.—*Horama clavipes*, ♀. ½.

Hab. Mexico, Guerrero (*H. H. Smith*); Guatemala (*Rodriquez*); Costa Rica (*Rogers*): Godman-Salvin Coll.; Venezuela. *Exp.* 34 millim.

Sect. III. Extremity of hind tibiæ and the tarsal joints fringed above with hair diminishing distally.

933. Horama tarsalis.

Horamia tarsalis, Wlk. vii. 1623 (1856); Kirby, Cat. Het. p. 130.

♂. Bronze-green; 1st joint of palpi orange; orange spots above frons, at middle and sides of tegulæ, on pectus and coxæ; hind legs with the fringes of hair black, the end of tarsus orange; abdomen with subdorsal and sublateral series of orange spots. Fore wing with orange point at base of costa. Hind wing with fringe of white hair on inner margin.

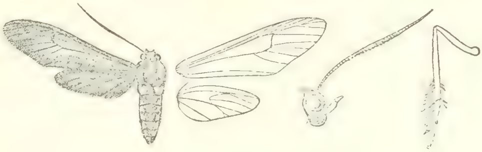

Fig. 220.—*Horama tarsalis*, ♂. $\frac{1}{1}$.

Hab. ignotus, 1 ♂ type in bad condition. *Exp.* 40 milli m.

Sect. IV. Hind tarsi fringed with scales above.

934. Horama grotei.

Horama grotei, Butl. Journ. Linn. Soc., Zool. xii. p. 374 (1876); Kirby, Cat. Het. p. 131.

♂. Red-brown; head yellow, with the extremity of palpi, a band between antennæ and the dilated part of antennæ blackish; tegulæ blackish in front, yellow behind; patagia with a yellow stripe; pectus blackish, with lateral white patches; coxæ yellow; femora blackish; tibiæ and tarsi yellow, with a blackish band at end of hind tibiæ; abdomen with the 1st segment bluish fuscous in front, yellow behind, and followed by some bluish fuscous; the first two segments bluish fuscous below, fringed with yellow. Hind wing tinged with fuscous, the costa narrowly yellow.

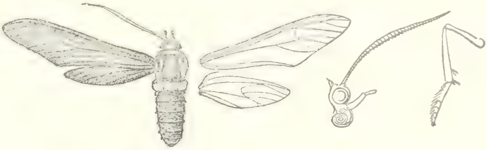

Fig. 221.—*Horama grotei*, ♂. $\frac{1}{1}$.

Hab. Jamaica (*Gosse*), 2 ♂, type. *Exp.* 44 millim.

Sect. V. Hind tarsi naked.

A. Hind wing fulvous with the termen brown........................ *diffissa.*
B. Hind wing brown suffused with fuscous .... *pretus.*

* 935. Horama diffissa.

Horama diffissa, Grote, Proc. Ent. Soc. Philad. vi. pp. 181, 310, pl. 5. f. 2 (1886); Kirby, Cat. Het. p. 131.
Horama pretellus, Herr.-Schäff. Corresp.-Blatt Regensb. xx. p. 113 (1886).

Palpi yellow, 2nd joint with some white scales; antennæ yellow, with some black at middle and tips; vertex of head purplish brown, with some yellow scales above frons; tegulæ pale yellow; patagia and thorax dusky brown; pectus with yellow spots; legs dark brown, the coxæ yellow, tarsi dusky ochreous; abdomen with the basal segment white, with yellow patches on lateral tubercles; 2nd and 3rd segments dark brown, with dorsal and lateral yellow spots; terminal segments paler brown. Fore wing fulvous brown. Hind wing ochreous yellow, with ill-defined dark terminal band narrowing from apex.

Hab. Cuba, Coll. Staudinger. *Exp.* 35–40 millim.

936. Horama pretus.

Sphinx pretus, Cram. Pap. Exot. ii. pl. 175. E, F (1777); Kirby, Cat. Het. p. 130.
Zygæna ceusiphus, Fabr. Spec. Ins. ii., App. p. 505 (1787).
Mastigocera respondens, Harris, Am. Journ. Sci. xxxvi. p. 315 (1839); Kirby, Cat. Het. p. 131.

Pale reddish brown; head and dilated part of antennæ blackish; tegulæ yellowish white; pectus blackish with patches of white; palpi below and coxæ white; legs with blackish bands at end of femora and tibiæ; abdomen with the 1st segment yellowish white, followed by blackish and whitish ventral and lateral bands; the extremity blackish. Hind wing with slight fuscous suffusion, the costal area yellowish.

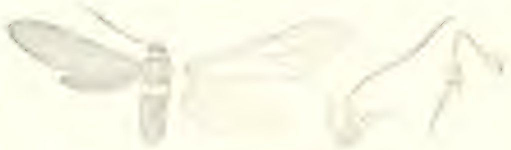

Fig. 222. *Horama pretus*, ♂. 1/1.

Hab. St. Thomas, 1 ♀; Venezuela; 2 ♂ without locality. *Exp.* 38 millim.

Genus EMPYREUMA.

Type

Empyreuma, Hübn. Verz. p. 120 (1827) .... *pugione*.

Proboscis fully developed; palpi upturned; frons hairy; antennæ bipectinate, with moderate branches; thorax clothed with woolly hair; tibiæ with the spurs short; abdomen with lateral tufts on terminal segments, those on anal segment long. Fore wing long and narrow; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the cell very long, veins 2 and 4 from angle; 3 from 2 just before termen; 5 curved from just below middle of discocellulars; 6, 7 from upper angle.

A. Abdomen with dorsal white spots on first two segments and two lateral series .... *lichas*.
B. Abdomen with sublateral white patches on 3rd and 4th segments .... *pugione*,

937. Empyreuma lichas.

Zygæna lichas, Fabr. Spec. Ins. ii. App. p. 505 (1781).
Sphinx sanguinosa, Martyn, Psyche, pl. 26. ff. 18, 19 (ined.); Kirby, Cat. Het. p. 121.

Head and thorax black-brown; antennæ bluish, the tips orange; tegulæ, shoulders, patagia, and coxæ with small white spots; abdomen metallic greenish, with dorsal white spots on first two segments, two lateral series, and two ventral white spots on first segment. Fore wing crimson-red, suffused with brownish except the costal fascia and base of inner margin. Hind wing crimson, the cilia blackish.

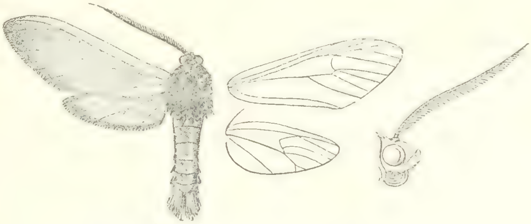

Fig. 223.—*Empyreuma lichas*, ♂. 1/1.

Hab. Haiti (*Tweedie*); Cuba; Honduras. *Exp.* 44–56 millim.

938. Empyreuma pugione.

Sphinx pugione, Linn. Syst. Nat. i. 2. p. 807 (1767); Kirby, Cat. Het. p. 122.
Sphinx lichas, Cram. Pap. Exot. i. pl. 45. B (1775).

Head and thorax blue-black; antennæ fulvous at tips; abdomen dull metallic bluish, with subdorsal white patches on 3rd and 4th segments. Fore wing crimson suffused with black, the veins and terminal area black with a slight bluish gloss. Hind wing crimson, with terminal black band.

Hab. Jamaica (*Gosse*). *Exp.* 50 millim.

Egg. Pale yellow, spherical with flattened base, with fine pentagonal reticulations.

Larva pale yellow-brown, with subdorsal, lateral, and sublateral series of small fuscous-edged white spots; the somites bearing subdorsal, lateral, and sublateral warts with radiating hairs, the 2nd to terminal somites also with paired dorsal warts and small warts above the sublateral series; the 2nd somite with long forwardly-directed hair on subdorsal warts, the subterminal segment with backwardly directed hair. *Food-plant*, Oleander.

Genus **LEUCOPLEURA**, nov.

Type, *L. eucadma*.

Proboscis well developed; palpi obliquely upturned to vertex of head, the 3rd joint short and porrect; antennæ bipectinate, with moderate branches dilated at extremity and ending in a bristle; tibiæ with the spurs short. Fore wing narrow; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 stalked from 7, 8, 9. Hind wing with the cell half the length of wing; veins 2 and 4 stalked; 3 absent; 5 from lower angle of cell; 6, 7 shortly stalked.

939. Leucopleura cucadma.

Cosmosoma cucadma, Druce, A. M. N. H. (6) xiii. p. 171 (1894); id. Biol. Centr.-Am., Het. ii. p. 335, pl. 70. f. 22.

♂. Blue-black; frons white; thorax with a pair of dorsal white spots; coxæ, fore legs, and tarsi marked with white; abdomen with subdorsal and ventral white stripes. Fore wing with white point at base of costa; a metallic blue streak below base of median nervure and mark at base of inner margin; an elongate hyaline spot below middle of cell; an oblique fascia composed of four spots beyond the cell, contracting at middle and expanding at lower end. Hind wing with metallic blue streaks in cell and on inner area; a hyaline streak below the cell and spots beyond the cell above and below vein 5.

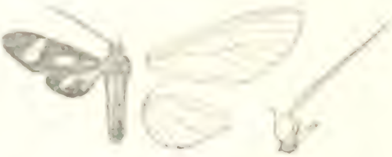

Fig. 224.—*Leucopleura cucadma*, ♂. 1.

Hab. Panama, Bugaba (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 30 millim.

Genus PSEUDOSPHENOPTERA.

	Type
Pseudosphenoptera, Butl. Journ. Linn. Soc., Zool. xii. p. 370 (1876).	*basalis*.
Chloropsinus, Butl. Journ. Linn. Soc., Zool. xii. p. 409 (1876)	*basalis*.

Proboscis well developed; palpi upturned, reaching just above vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; abdomen rather slender towards base but not constricted, the terminal segments with slight lateral tufts. Fore wing long and narrow; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from well before angle of cell; 3 from 2 close to the termen; 4, 5 from angle; 6, 7 stalked

940. Pseudosphenoptera basalis.

Euchromia basalis, Wlk. i. 251 (1854); Kirby, Cat. Het. p. 128.
Chloropsinus lanceolatus, Butl. Journ. Linn. Soc., Zool. xii. p. 409 (1876); Kirby, Cat. Het. p. 156.

Black shot with metallic blue; frons and vertex of head and thorax mixed with white; tegulæ, metathorax, sides of thorax, and legs with patches of metallic blue; abdomen with two white spots on 1st segment; indistinct dorsal and subdorsal metallic blue lines; a ventral white patch at base. Fore wing strongly suffused with metallic blue; two blue points at base; short hyaline streaks below base of costa and median nervure, and small spots above and below vein 1. Hind wing with hyaline spot below base of cell, and short streak on inner margin.

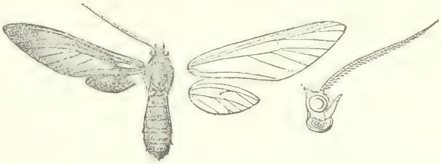

Fig. 225.—*Pseudosphenoptera basalis*, ♂. $\frac{1}{1}$.

Hab. Amazons, Ega (*Bates*), 1 ♀ type; São Paulo, 1 ♂, type *lanceolatus*. *Exp.* 42 millim.

Genus PSEUDOPOMPILIA, nov.

Type, *P. mimica*.

Proboscis fully developed; palpi upturned, not reaching vertex of head, the 1st joint thickly clothed with long scales; antennæ of female with short branches dilated at extremity; tibiæ with the spurs short; abdomen with the 1st and 2nd segments slightly constricted, the 1st with lateral tubercles; the terminal segments tapering to a point, and with slight lateral tufts. Fore wing very long and narrow, the costa arched beyond middle; the termen very oblique; vein 3 from near angle of cell; 4, 5 on a very long stalk; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from long before angle of cell; 3 and 5 from angle and approximated for a short distance; 4 absent; 6, 7 from upper angle.

*941. Pseudopompilia mimica.

Pseudopompilia mimica, Druce, A. M. N. H. (7) i. p. 401 (1898).

♀. Blue-black; palpi whitish in front; the minute maxillary palpi fringed with yellow hair; antennæ with the basal half of shaft white above; coxæ with some white; tarsi streaked with ochreous above, basal half of hind tibiæ and spurs streaked with ochreous below. Fore wing shot with brilliant blue; a greenish silvery patch at base of costa; a slight rufous streak below base of cell, and

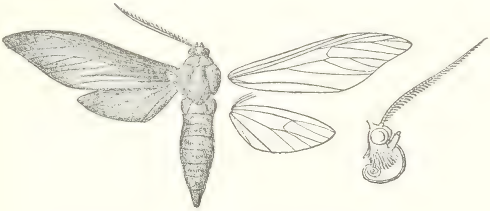

Fig. 226.—*Pseudopompilia mimica*, ♀. $\frac{1}{1}$.

greenish streak below its extremity. Hind wing with small hyaline patch below base of cell. Underside of fore wing with rufous streak below costa, towards apex.

Hab. AMAZONS, 1 ♀ type in Mus. Oxon. *Exp.* 52 millim.

Genus XANTHOPLEURA, nov.

Type, *X. trotschi*.

Proboscis well developed; palpi upturned and hardly reaching vertex of head, the 3rd joint minute; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4 from angle; 5 obsolescent from middle of discocellulars; 6, 7 shortly stalked; 8 present as a short rudiment.

A. Abdomen without yellow band on 1st segment.
  a. Fore wing with hyaline spot above base of vein 2 ...... *perspicua*.
  b. Fore wing without hyaline spot above vein 2 .... *trotschi*.
B. Abdomen with yellow band on 1st segment .... *flavocincta*.

942. Xanthopleura perspicua.

Calonotos perspicua, Wlk. vii. 1627 (1856); Kirby, Cat. Het. p. 125.
Calonotos sandion, Druce, P. Z. S. 1883, p. 373; Kirby, Cat. Het. p. 125.

Black; frons, back of head, shoulders, end of patagia, vertex of thorax, pectus, and coxæ with white spots; abdomen tinged with greenish; broad subdorsal and sublateral greenish-yellow fasciæ. Fore wing with two hyaline streaks in cell; a streak below the cell; a spot above the base of vein 2, and a series of four elongate spots beyond the cell between veins 3 and 7, the two lower largest. Hind wing with hyaline streaks in and below the cell, and two small spots beyond the cell.

Hab. COLOMBIA; ECUADOR (*Buckley*), 1 ♂ type† *sandion* in Coll. Druce; AMAZONS, 1 ♂, Para (*Bates*), type† ♀ in Mus. Oxon. *Exp.* 54 millim.

943. Xanthopleura trotschi.

Calonotos trotschi, Druce, Biol. Centr.-Am., Het. i. p. 44, pl. 8. f. 8 (1884); Kirby, Cat. Het. p. 125.

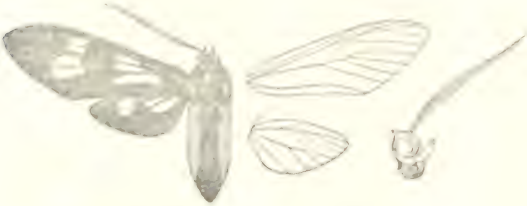

Fig. 227.—*Xanthopleura trotschi*, ♀. 1.

♀. Black; palpi, frons, vertex of head, mesothorax, shoulders, patagia, and coxæ with white spots; abdomen with broad subdorsal and sublateral orange-yellow bands not reaching extremity; wings shot with blue. Fore wing with two hyaline streaks in end of cell and a longer streak below the cell; a pair of spots beyond the cell between veins 3 and 5, and a pair of spots above and below vein 6. Hind wing with hyaline streaks in and below the cell, and two spots beyond the cell.

Hab. PANAMA, Chiriqui (*Trötsch*), 1 ♀, Godman-Salvin Coll. *Exp.* 54 millim. Type in Coll. Staudinger.

*944. Xanthopleura ? flavocincta.

Glaucopis flavocinctus, Guér. Icon. R. Anim., Ins. p. 503 (1844); Kirby, Cat. Het. p. 139.

Black; antennæ with short white streak on base of shaft; tegulæ with green spots, shoulders with white spots; pectus and legs with white spots; abdomen with the 1st segment yellow, the others with metallic green narrow dorsal and broad lateral stripes; anal tuft yellow; some lateral white spots. Wings hyaline, with broad black edges and medial band.

Hab. CAYENNE. *Exp.* 45 millim. This species is unknown to me.

Genus **CHLOROSTOLA**, nov.

Type, *C. corydon*.

Proboscis well developed; palpi upturned, reaching vertex of head and moderately scaled; antennæ bipectinate, with moderate branches dilated at extremity and ending in a bristle, the medial part of shaft dilated; tibiæ with the spurs moderate; thorax clothed with woolly hair; abdomen with slight lateral tufts on terminal segments and larger tufts on last segment. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long, vein 2 from just before angle; 3, 4 stalked; 5 absent; 6, 7 from upper angle.

A. Abdomen with metallic green bands on 2nd and 3rd segments, and large subdorsal spots on the others......... *interrupta.*
B. Abdomen with slight bluish-white subdorsal marks ...... *corydon.*

*945. Chlorostola interrupta. (Plate XV. fig. 13.)

Calonotas interrupta, Wlk. vii. 1628 (1856); Druce, Biol. Centr.-Am., Het. i. p. 44; Kirby, Cat. Het. p. 126.

♂. Black; patches of bluish scales on tegulæ and patagia; white spots on vertex of thorax, shoulders, and coxæ; abdomen with small dorsal white spot on 1st segment; metallic greenish bands on 2nd and 3rd segments and large subdorsal patches on the others; lateral and sublateral series of white spots. Fore wing with two white points at base; a short hyaline streak below middle of cell, with two short streaks in the cell just beyond it; a series of short hyaline streaks beyond the cell between veins 3 and 7; a few patches of metallic green scales representing an antemedial band, and a short postmedial streak below costa. Hind wing with hyaline patches below the cell and on inner area; a spot in end of cell and two small spots beyond it.

On the left side of type, veins 6 and 7 of fore wing are connected at middle by a bar.

Hab. Mexico, 1 ♂ type † in Mus. Oxon. *Exp.* 46 millim.

946. Chlorostola corydon.

Eupyra corydon, Druce, Biol. Centr.-Am., Het. i. p. 44, pl. 6. f. 13 (1884); Kirby, Cat. Het. p. 124.

Black; antennæ white at tips; two white points above each eye; tegulæ with white dorsal and larger lateral points; white spots on shoulders; slight white marks on vertex of thorax; coxæ white; abdomen with dorsal white spots on 1st two segments, slight subdorsal bluish-white marks on the other segments, and lateral spots; wings black. Fore wing with antemedial metallic green band; two slight hyaline streaks in middle of cell and a spot below it; two spots towards end of cell and a speck above base of vein 2; a green mark on discocellulars; a series of four hyaline spots beyond the cell, with a diffused metallic green band beyond them bent round below vein 3 to middle of inner margin. Hind wing with hyaline patch in end of cell, another below it, and one on inner area; two conjoined spots beyond the cell.

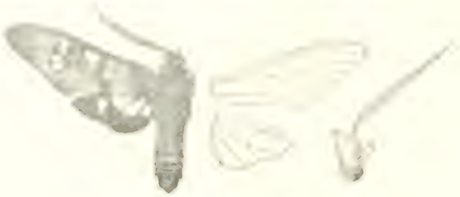

Fig. 228. *Chlorostola corydon*, ♂. ½.

Hab. Mexico, Jalapa (*Trujillo*), Orizaba; Guatemala, Vera Paz (*Champion*), type, Godman-Salvin Coll. *Exp.* 46 millim.

Genus IXYLASIA.

Type.

Ixylasia, Butl. Journ. Linn. Soc., Zool. xii. p. 410 (1876) …… *trogonoides*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches. Tibiæ with the spurs moderate. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from well before angle; 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle.

SECT. I. Abdomen of male with lateral tufts of long hair from base.

947. Ixylasia trogonoides.

Aclytia trogonoides, Wlk. xxxi. 101 (1864); Kirby, Cat. Het. p. 157.

♂. Black; antennæ white at tips; palpi at base, back of head, tegulæ, shoulders, patagia, and coxæ with white points; abdomen with the tufts of hair brown, ill-defined metallic greenish lateral bands, the 2nd segment with lateral white spots and a sublateral series of spots. Fore wing with white point at base; diffused streaks of metallic green scales on basal area, extending on costal area to just beyond middle. Hind wing hyaline, with the veins and a broad terminal band black, indented below vein 5 and above tornus.

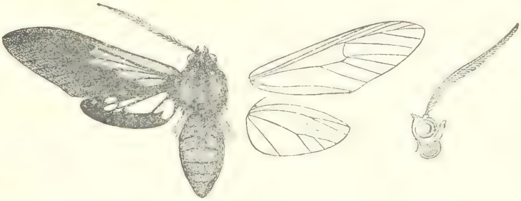

Fig. 229.—*Ixylasia trogonoides*, ♂. 1/1.

Hab. BRAZIL, 1 ♂ type. *Exp.* 56 millim.

SECT. II. Abdomen of male without lateral tufts of long hair from base.

* 948. Ixylasia schausi.

Eupyra schausi, Druce, Biol. Centr.-Am., Het., ii. p. 334, pl. 70. f. 21 (1896).

♂. Black; back of head, tegulæ, patagia, shoulders, and meso- and metathorax with bluish-white points; coxæ white; abdomen with dorsal white point on 1st segment, subdorsal series of metallic green patches, lateral white spots on 2nd and 3rd segments and a sublateral series. Fore wing with two white points at base; some metallic green suffusion on medial area and towards tornus; a hyaline spot below middle of cell, a spot in upper end of cell, and point at origin of vein 2; a series of elongate patches beyond the

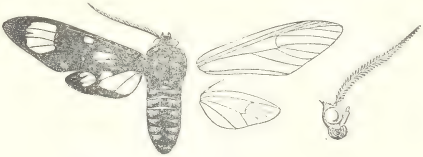

Fig. 230.—*Ixylasia schausi*, ♂, 1/1.

cell between veins 3 and 7. Hind wing with hyaline patch in end of cell; large patches below the cell and on inner area and three conjoined spots below the cell.

Hab. Mexico, Orizaba. *Exp.* 42 millim. Type + in Coll. Schaus.

Genus PHÆNARETE.

Type.
Phænarete, Druce, A. M. N. H. (6) xviii. p. 31 (1896). .... *diana*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with short branches dilated at extremity and ending in a bristle; head and thorax roughly scaled; tibiæ with the spurs moderate; abdomen roughly scaled at base and with slight lateral tufts on terminal segments. Fore wing long and narrow; vein 3 from long before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from just before angle of cell; 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle.

*949. Phænarete diana.

Phænarete diana, Druce, A. M. N. H. (6) xviii. p. 31 (1896); id. Biol. Centr.-Am., Het. ii. p. 349, pl. 72. f. 1.

♂. Dark brown; white points on base of palpi, behind eyes, on tegulæ, base of patagia, and metathorax; coxæ and base of tibiæ with patches of white; abdomen with subdorsal and lateral patches of diffused white scales; the 2nd segment with sublateral white spots, the 3rd with ventral band, and 4th with slight band. Fore wing with bifid hyaline streak in end of cell; streaks below middle of cell and base of vein 2, above base of vein 2, and between veins 3 and 7. Hind wing hyaline, the veins and margins brown; the upper part of cell brown; the terminal line expanding towards apex and dentate above vein 1.

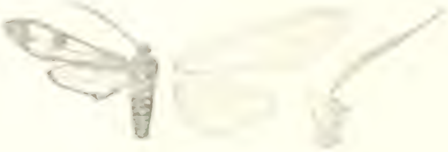

Fig. 231.—*Phænarete diana*, ♂. $\frac{1}{1}$.

Hab. Panama, Chiriqui, 1 ♂ type + in Coll. Staudinger. *Exp.* 38 millim.

Genus CACOSTATIA, nov.

Type, *C. sapphira*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs short; abdomen slender, lateral tubercles on 1st segment, male with lateral protrusible tufts from subterminal segment. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked.

Hind wing with the cell two-thirds of wing; vein 2 from well before angle; 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle.

A. Fore wing with triangular hyaline patch in and below cell and between veins 2 and 3	*ossa.*
B. Fore wing with hyaline streak in lower part of cell and fascia below the cell	*sapphira.*
C. Fore wing with triangular spot above base of vein 2	*discalis.*

950. Cacostatia ossa.

Metastatia ossa, Druce, P. Z. S. 1893, p. 285; Biol. Centr.-Am., Het. ii. p. 359, pl. 73. f. 1.

♂. Black shot with brilliant blue; frons at sides and coxæ white; abdomen with the ventral surface white. Fore wing with large triangular hyaline patch in and below cell and between veins 2 and 3; an oblique band beyond the cell from below costa to vein 3 near termen. Hind wing hyaline, the veins, and a rather irregular terminal band narrowest at middle, black shot with blue; cilia white towards tornus.

Hab. British Guiana (*Whitely*), type † in Coll. Druce; Cayenne; Colombia, Bogota, 1 ♂. *Exp.* 42 millim.

951. Cacostatia sapphira.

Agyrta saphira, Staud. Verh. zool.-bot. Ges. Wien, xxv. p. 122 (1875) Druce, Biol. Centr.-Am., Het. i. p. 81; Kirby, Cat. Het. p. 180.

Black; head, metathorax, and abdomen shot with metallic blue; palpi in front, points on frons and shoulders, head behind eyes, coxæ, and stripes on legs white; abdomen with the ventral surface white. Fore wing metallic blue at base; a hyaline streak in lower part of cell and somewhat wedge-shaped fascia below the cell; an oblique band beyond the cell from just below the costa to vein 2 near termen. Hind wing hyaline, the veins, and a terminal band expanding at apex and tornus and extending on inner margin to near base, black shot with brilliant blue; cilia white towards tornus.

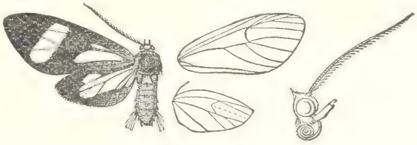

Fig. 232.—*Cacostatia sapphira*, ♂. $\frac{1}{1}$.

Hab. Mexico, Tabasco (*H. H. Smith*), Misantla (*Trujillo*); Guatemala; Panama (*Champion*): Godman-Salvin Coll. *Exp.* 38 millim.

*952. Cacostatia discalis. (Plate XV. fig. 2.)

Euagra discalis, Wlk. vii. 1651 (1856); Kirby, Cat. Het. p. 179.

♂. Black shot with brilliant metallic blue; frons, shoulders, and some patches of scales on tegulæ and metathorax white; neck below and coxæ white; abdomen with subdorsal and sublateral, and broad ventral white fasciæ. Fore wing with patch of white scales on base of vein 1; a small triangular hyaline patch above base of vein 2 and a broad oblique band beyond the cell between veins 3 and 7, the veins crossing it blue. Hind wing hyaline, the veins, and margins broadly, blue-black; the terminal band expanding towards apex and tornus.

Ab. 1. Fore wing with small hyaline spots below base of cell and vein 2, and above median nervure beyond origin of vein 2.—Coll. Staudinger.

Hab. Amazons (*Bates*), 1 ♂ type + in Mus. Oxon. *Exp.* 36 millim.

Genus AUTOCHLORIS.

	Type.
Autochloris, Hübn. Verz. p. 125 (1827)	*almon*
Schasiura, Butl. Ill. Het. i. p. 37 (1877)	*mimica.*

Proboscis well developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; build stout; tibiæ with the spurs moderate. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle, 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from long before angle of cell; 3, 4 from angle; 5 absent; 6, 7 from upper angle.

Sect. I. (*Autochloris*). Abdomen of male with large lateral valves on 2nd segment.

953. Autochloris almon.

Autochloris almon, Cram. Pap. Exot. iii. pl. 224. F; Stoll, Suppl. Cram. pl. 11. ff. 1 A, D; Kirby, Cat. Het. p. 125.

♂. Black; tegulæ with green points; abdomen with broad subdorsal golden-green fasciæ except on first two segments; the lateral valves on 2nd segment with small white spots and a

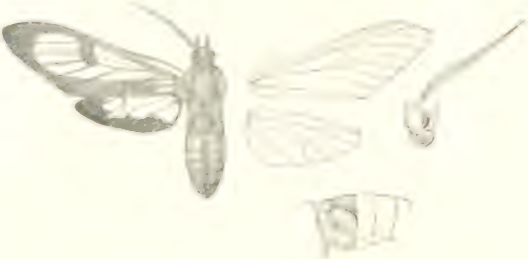

Fig. 233.—*Autochloris almon*, ♂. $\frac{1}{1}$.

sublateral series. Fore wing hyaline, with the margins very broadly black; a large discoidal patch and the veins black; some green suffusion at base of inner area. Hind wing hyaline, with the veins and a broad irregular terminal band black.

Hab. Surinam; Brazil, 1 ♀. *Exp.* 54 millim.

Sect. II. (*Schasiura*). Abdomen without lateral valves on 2nd segment.

954. Autochloris mimica.

Schasiura mimica, Butl. Ill. Het. i. p. 37, pl. 16. f. 6 (1877); Kirby, Cat. Het. p. 136.

♂. Head, thorax, and abdomen black; frons white; palpi white at base; base of patagia, prothorax, metathorax, shoulders, and sides of thorax and coxæ with white spots; abdomen with white dorsal and lateral spots on 1st segment; the last segment and dorsal and ventral patches on the antepenultimate segment crimson-red; wings hyaline, the veins, and margins rather broadly, black; a black discocellular bar conjoined to the costal fascia; the terminal band somewhat dilated towards apex and tornus. Hind wing with the terminal band expanding and dentate towards anal angle.

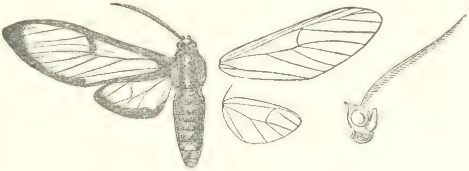

Fig. 234.—*Autochloris mimica*, ♂. $\frac{1}{1}$.

Hab. Amazons, R. Solimoës (*Trail*), 1 ♂ type. *Exp.* 50 millim.

Genus EUPYRA.

Type.

Eupyra, Herr.-Schäff. Aussereur. Schmett. i. p. 78 (1853), non descr. .... *imperialis*.

Proboscis well developed; palpi upturned, hardly reaching vertex of head and clothed with long hair; antennæ of male bipectinate, with rather long branches; tibiæ with the spurs moderate; head, thorax, and abdomen clothed with long hair; the last with lateral tufts towards extremity. Fore wing rather broad; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked, 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from close to angle; 5 from well above it.

Sect. I. Fore wing with vein 10 stalked with 7, 8, 9.

A. Fore wing with hyaline spot above vein 2.................. *disticta*.
B. Fore wing with hyaline spot in cell only .... *imperialis*.

955. Eupyra disticta, n. sp. (Plate XV. fig. 15.)

♀. Black; frons, gulæ, tegulæ, patagia, shoulders, metathorax, coxæ, and end of hind tibiæ with bluish-white spots; abdomen with subdorsal metallic green patches, the medial segments with ventral white bands. Fore wing with the interspaces of basal half metallic green; a subquadrate hyaline spot in end of cell and a rounded spot above middle of vein 2; greenish streaks in interspaces of terminal area above vein 3. Hind wing slightly suffused with blue; small white spots above and below vein 2, the former often obsolete. Underside almost entirely suffused with blue; hind wing with white spot in end of cell.

Hab. Bolivia, Chaco (*Garlepp*), 1 ♀ type. *Exp.* 44 millim.

956. Eupyra imperialis.

Eupyra imperialis, Herr.-Schäff. Aussereur. Schmett. f. 54 (1855); Kirby, Cat. Het. p. 124.
Charidea florella, Butl. A. M. N. H. (4) xii. p. 227 (1873); Kirby, Cat. Het. p. 124.

Head, thorax, and abdomen black suffused with cupreous green; tegulæ with white spots; abdomen with sublateral whitish spots. Fore wing black suffused with cupreous metallic green, leaving a black fascia on inner margin expanding at middle into a spot above vein 1; a black patch in end of cell with a large hyaline spot on it; the veins and terminal area black. Hind wing black slightly irrorated with green; a hyaline spot in end of cell and green spot beyond it; under-side metallic green.

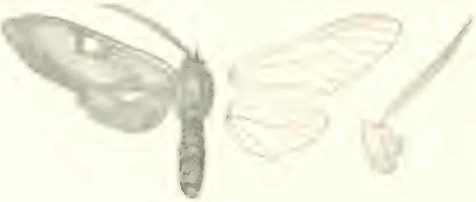

Fig. 235. *Eupyra imperialis*, ♂. ½.

Hab. Venezuela; Peru, Huasampella, 9000 ft. (*Whitely*), 1 ♂, type *florella*. *Exp.* 42 millim.

Subsp. 1. *ducalis*, Maasen, Stubel's Reise S. Amer. p. 43 (1890); Kirby, Cat. Het. p. 124.

Hind wing without the hyaline spot in end of cell. Fore wing without the black fascia and spot on inner area; the green extending nearly to termen; the spot in cell larger.

Hab. Colombia, 1 ♀.

Sect. II. Fore wing with vein 10 from the cell.

- A. Fore wing with hyaline medial and postmedial spots.
  - *a*. Abdomen with dorsal series of white spots: fore wing with subterminal hyaline spots between veins 3 and 5. *sages*.
  - *b*. Abdomen without dorsal series of white spots; fore wing without subterminal hyaline spots between veins 3 and 5. *sarama*.
- B. Fore wing with small hyaline spot in end of cell and traces of a point beyond the cell .... *consors*.
- C. Wings without hyaline spots .... *psittacus*.

957. **Eupyra sages.** (Plate XV. fig. 3.)

Eupyra sages, Druce, A. M. N. H. (6) xv. p. 43 (1895).

♂. Black; frons with white points, white spots behind eyes and at base and extremity of patagia; coxæ and extremities of femora with patches of white; abdomen with some golden green at sides; a dorsal series of white spots; broad sublateral white fasciæ not reaching extremity. Fore wing with the basal half and the area below vein 5 to near termen suffused with golden green; an elliptical hyaline spot below origin of vein 2; rounded spots in upper end of cell and above veins 3 and 6, the former with point above vein 4, the latter with point below vein 6. Hind wing with some blue on costa and inner margin; elongate hyaline patches below the cell and on inner area, an irregular patch in end of cell with two points beyond it.

Ab. 1. The spots of both wings much reduced, those of fore wing above vein 4 and below 6 absent.

Hab. BOLIVIA (*Garlepp*), 2 ♂. *Exp.* 48 millim. Type † in Coll. Druce.

*958. **Eupyra sarama.** (Plate XV. fig. 22.)

Eupyra sarama, Dognin, Le Nat. xiii. p. 109 (1891); Kirby, Cat. Het. p. 903.

♂. Black; frons with lateral white points; gulæ white; tegulæ with their bases and a point near extremity white; fore coxæ white on inner side, blue on outer; hind tibiæ with white patches at extremity; abdomen with segmental lines of naked membrane on medial segments, lateral metallic green fasciæ meeting on terminal segment, the ventral surface with white bands on first three segments, the next three with paired spots. Fore wing suffused with golden metallic green except the veins, the end of cell, and medial, costal, and terminal areas; hyaline spots at base of vein 2, in end of cell, and above base of vein 6 and a point below 6. Hind wing with the costal and inner areas brilliant metallic blue; a hyaline spot below the cell and small spot near inner margin; a spot beyond the cell. Underside with the basal and inner areas of fore wing and nearly the whole hind wing suffused with metallic blue.

Hab. VENEZUELA, Menda. *Exp.* 48 millim. Type † in Coll. Dognin.

959. **Eupyra consors.**

Eupyra consors, Schaus, P. Z. S. 1892, p. 273, and Am. Lep. pl. i. f. 7.

♂. Head, thorax, and abdomen black; frons, gulæ, tegulæ, patagia, shoulders, and mid and hind femora with white points; coxæ white; abdomen with lateral golden green stripes; dorsal and sublateral series of white spots. Fore wing suffused with golden green, leaving the veins and terminal area black; a small hyaline spot in upper end of cell, and traces of a point beyond the cell above vein 6. Hind wing black, with some green suffusion in cell and on apical part of costa; semihyaline spots below middle of cell and near base of inner margin; some metallic blue near tornus.

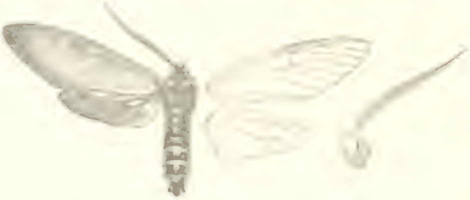

Fig. 236. *Eupyra consors*, ♂. ½.

Ab. 1. Hind wing with traces of the spot above inner margin only.

Hab. Bolivia (*Garlepp*), 1 ♂; Peru. *Exp.* 50 millim. Type † in Coll. Schaus.

960. Eupyra psittacus.

Eupyra psittacus, Schaus, P. Z. S. 1892, p. 273, and Am. Lep. pl. i. f. 6.

♂. Head, thorax, and abdomen black; frons, gulæ, tegulæ, shoulders, mesothorax, and mid and hind femora with white points; abdomen with lateral metallic green streaks; dorsal and sublateral series of white spots. Fore wing suffused with metallic golden green, leaving the veins and terminal area black. Hind wing black, with golden green streaks in and below cell and metallic blue suffusion on inner area.

Hab. Peru; Bolivia, Bueyes (*Garlepp*), 1 ♂. *Exp.* 44 millim. Type † in Coll. Schaus.

Genus **DIAXANTHIA**, nov.

Type, *D. lucinia.*

Proboscis fully developed; palpi obliquely upturned to vertex of head and fringed with hair above; antennæ of male bipectinate, with long branches; tibiæ with the spurs moderate. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from well before angle of cell; 3 from angle; 4 absent; 5 curved from below angle of discocellulars; 6, 7 from upper angle.

961. Diaxanthia lucinia.

Automolis lucinia, Druce, Biol. Centr.-Am., Het. i. p. 75, pl. 8. f. 26 (1884); Kirby, Cat. Het. p. 167.

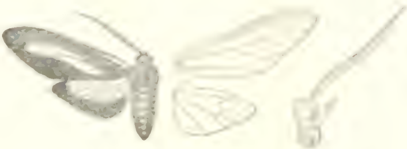

Fig. 237.—*Diaxanthia lucinia*, ♂. ½.

♂. Black; frons, vertex of head, tegulæ, patagia, pectus, and legs with patches of metallic blue; a yellowish line behind the eyes and a band on shoulders; abdomen with dorsal and lateral series of metallic blue spots. Fore wing with yellowish fascia on the basal part of costa; a broad oblique fascia from just above vein 1 before middle to just above vein 5 near termen. Hind wing fulvous orange, with broad terminal black band becoming very wide towards tornus.

Hab. Costa Rica, Irazu, 6000 ft. (*Rogers*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 38 millim.

Genus TIPULODES.

Type.
Tipulodes, Boisd. Voy. Astrolabe, Lép. p. 195 (1832) .... *ima.*

Proboscis well developed; palpi upturned, slender, and reaching vertex of head; antennæ bipectinate, the branches dilated at extremity and ending in a bristle, in female short; tibiæ with the spurs short. Fore wing long and narrow; vein 3 from well before angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from well before angle; 3 and 4 stalked from angle; 5 from above angle; 6, 7 from upper angle.

962. Tipulodes ima.

Tipulodes ima, Boisd. Voy. Astrolabe, Lép. p. 196, pl. 3. f. 7 (1832); Kirby, Cat. Het. p. 113.

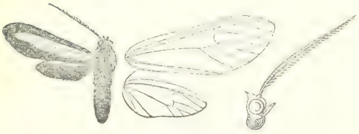

Fig. 238.
Tipulodes ima, ♂. 1/1.

Black; patagia scarlet; fore wing with a broad scarlet fascia from base of inner margin below and through end of cell to near outer margin. Hind wing with the basal two-thirds of costa scarlet.

Hab. Brazil, Espiritu Santo, Rio Grande, Rio Janeiro. *Exp.* 26 millim.

Genus CALLOPEPLA, nov.

Type, *C. inachia.*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; abdomen with lateral tubercles on 1st segment. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10, 11 stalked, 7 being given off beyond 10. Hind wing with the cell long; vein 3 from near angle; 4, 5 from just above angle; 6, 7 from upper angle.

A. Fore wing with orange streaks in submedian interspace and on vein 1 .... *inachia.*
B. Fore wing without orange streaks.
  a. Fore wing with the patch not dentate on outer side.
    a^1. Fore wing with the patch reddish orange, the black extending into base of cell .... *emarginata.*
    b^1. Fore wing with the patch orange-yellow, the whole cell yellow .... *flammula.*
  b. Fore wing with three dentations on outer edge of patch... *similis.*

963. Callopepla inachia.

Charidea inachia, Schaus, P. Z. S. 1892, p. 277; id. Am. Lep. pl. i. f. 19, ♀.
Charidea heterea, Schaus, J. N. Y. Ent. Soc. iv. p. 133 (1896), ♂.

♂. Black; head, tegulæ, patagia, thorax, and legs with patches of metallic blue; fore coxæ white; abdomen brilliant metallic blue. Fore wing with fine orange streaks in submedian interspace and on vein 1 to beyond middle and a slight streak on inner margin; an oblique band beyond the cell from below costa to near middle of termen. Hind wing and underside of both wings with the basal two-thirds brilliant metallic blue.

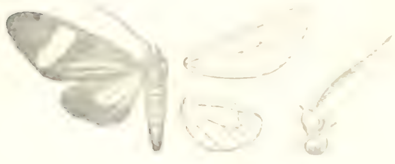

Fig. 239.
Callopepla inachia, ♂. ½.

♀. Fore coxæ black. Fore wing with orange patch in cell and between veins 2 and 3, forming with the oblique band a large triangular patch and leaving the veins more or less strongly black; underside with a little metallic blue at base and on inner area of hind wing only.

Hab. Brazil, Petropolis (*Dyar*), 1 ♀, Theresopolis, 1 ♂, Rio Janeiro, 1 ♂ 2 ♀. *Exp.* 38 millim. Types † in Coll. Schaus.

964. Callopepla emarginata. (Plate XV. fig. 10.)

Josia emarginata, Wlk. ii. 295 (1854); Kirby, Cat. Het. p. 408.

♀. Black; abdomen with slight dorsal grey stripe. Fore wing with oblique reddish-orange band from just below medial part of costa to termen above tornus, its edges rather irregular and sending a spur below costa more or less towards the base.

Hab. Brazil, type ♀; São Paulo (*Jones*), 1 ♀. *Exp.* 30 miilim.

965. Callopepla flammula.

Calosoma flammula, Geyer, Zutr. ex. Schmett. iv. p. 14, ff. 637, 638 (1827); Kirby, Cat. Het. p. 408.

♂. Fuscous black; legs striped with grey; abdomen with fine grey dorsal, lateral, and sublateral stripes. Fore wing with large oblique triangular patch extending just below costa from base to middle and with its apex at termen on veins 2 and 3.

♀ with the legs not striped with grey.

Hab. Brazil, Espiritu Santo, 1 ♂ 1 ♀. *Exp.*, ♂ 30, ♀ 38 millim.

*966. Callopepla similis.

Charida similis, Heyl. C.R. Soc. Ent. Belge, xxxiv. p. xv (1890).

♂. Deep black; frons and vertex of head with patches of metallic blue; thorax and abdomen dorsally streaked with blue. Fore wing with oblique orange band from just below middle of costa to near termen between veins 2 and 3, its inner edge rounded, its outer edge with three teeth pointing towards apex below costa, on vein 4 and below vein 3, the band wide below costa and narrowing between veins 3, 4; cilia white at apex. Hind wing with the cilia white at middle. Underside with the nervures of fore wing and cell of hind wing streaked with blue.

♀ with the band of fore wing broader.

Hab. Brazil, São Paulo. *Exp.*, ♂ 36, ♀ 40 millim. This species is unknown to me.

Genus CYANOPEPLA.

Type.

Cyanopepla, Clem. Proc. Acad. Nat. Sci. Philad. 1860, p. 545 (1861) .... *bella.*

Proboscis fully developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; abdomen with lateral tubercles on basal segment. Fore wing with vein 3 from close to angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4 from angle or separate, rarely very shortly stalked; 5 from well above angle (in aberrant specimens from near angle); 6, 7 from upper angle, sometimes very shortly stalked.

- A. Fore wing with crimson or orange markings.
  - *a*. Hind wing with crimson or orange terminal patch or band.
    - a^1. Fore wing without oblique orange band across apical area.
      - a^2. Fore wing with oblique wedge-shaped patch on middle of costa extending down to vein 1.
        - a^3. Both wings with the markings and cilia crimson. *scintillans.*
        - b^3. Both wings with the markings and cilia orange. *panamensis.*
      - b^2. Fore wing without oblique medial patch.
        - a^3. Fore wing with short crimson streak at base only.
          - a^4. Fore wing with the termen and cilia white ... *quadricolor.*
          - b^4. Fore wing with the cilia yellowish at tips ...... *lystra.*
        - b^3. Fore wing with more or less prominent crimson patch in and below end of cell on underside, no crimson in or beyond cell on upperside, the costa and cilia usually more or less orange .... *cinctipennis.*
        - c^3. Fore wing with crimson streak in lower end of cell in ♀ and sometimes in ♂, two spots beyond lower angle .... *micans.*
        - d^3. Fore wing with crimson spot in end of cell.
          - a^4. Underside of fore wing with crimson spot beyond lower angle of cell .... *fastuosa.*
          - b^4 Underside of fore wing with oblique postmedial bar between veins 7 and 3 .... *alonzo.*
    - b^1. Fore wing with oblique orange band across apical area. *arrogans.*
  - *b*. Hind wing without crimson or orange terminal patch or band.
    - a^1. Fore wing with crimson spots or band on upperside beyond cell, sometimes confluent with the basal fascia.
      - a^2. Fore wing without crimson or orange in cell.
        - a^3. Fore wing with orange patch beyond the cell and no patch or fascia at base .... *xenodice.*
        - b^3. Fore wing with oblique orange and crimson band across apical area and fascia below the cell ...... *submacula.*
        - c^3. Fore wing with oblique crimson band across apical area and fascia below the cell .... *jucunda.*

b^2. Fore wing with more or less crimson or orange in cell above or below.
  a^3. Fore wing with broad crimson fascia in, above, and below cell.
    a^4. Hind wing without crimson patch.
      a^5. Fore wing without metallic blue-green streaks on inner area .... *griseldis.*
      b^5. Fore wing with metallic blue-green streaks on inner area .... *bella.*
    b^4. Hind wing with crimson patch in, below, and beyond end of cell .... *phœnicia.*
  b^3. Fore wing with oblique band from below costa across upper angle of cell to just before termen above vein 2.
    a^4. Fore wing with the band crimson .... *julia.*
    b^4. Fore wing with the band orange .... *orbona.*
  c^3. Fore wing with oblique crimson patch in and beyond end of cell, not reaching costa or tornus. *imperialis.*
  d^3. Fore wing with elongate crimson patch in and beyond end of cell; hind wing with subterminal crimson patch .... *amata.*
  e^3. Fore wing with crimson spot below base of cell, streak in end of it, and oblique spots beyond it *hurama.*
  f^3. Fore wing with crimson spots in and below base of cell, and oblique spots beyond it .... *pretiosa.*
  g^3. Fore wing with crimson spots below base and beyond end of cell on upperside and large patch in, below, and beyond cell on underside .... *perilla.*
b^1. Fore wing with basal spot below cell only on upperside.
  a^2. Cilia of fore wing brown, of hind wing whitish.
    a^3. Both wings with crimson patch beyond cell on underside .... *basimacula.*
    b^3. Both wings with curved crimson band beyond and below end of cell, on underside, and on hind wings above .... *bertha.*
    c^3. Both wings without crimson markings on underside .... *obscura.*
  b^2. Cilia of both wings orange.
    a^3. Fore wing with crimson spot beyond cell on [illegible] [illegible]
    b^3. Fore wing without crimson beyond the cell on [illegible] [illegible]

B. Fore wing with oblique postmedial hyaline band.
  a. Fore wing with hyaline patch below the cell .... *agyrtidia.*
  b. Fore wing without hyaline patch below the cell.
    a^1. Fore wing with brilliant blue on outer edge of postmedial band .... *chelidon.*
    b^1. Fore wing without blue beyond postmedial band.
      a^2. Hind wing with hyaline fascia .... *glaucopoides.*
      b^2. Hind wing with slight hyaline streaks towards termen .... *ribbei.*
C. Fore wing with broad curved postmedial hyaline band ... *musia.*

967. Cyanopepla scintillans.

Euchromia scintillans, Butl. Cist. Ent. i. p. 87 (1872); id. Lep. Exot. p. 175, pl. 61. f. 16; Druce, Biol. Centr.-Am., Het. i. p. 71; Kirby, Cat. Het. p. 162.

♂. Black; head, tegulæ, patagia, thorax, and legs with metallic blue patches; fore coxæ and stripes on fore legs white; abdomen with broad metallic blue bands on each segment, narrow below. Fore wing with metallic blue spot at base of costa, and short streaks above vein 1 and on inner margin; a bright crimson oblique wedge-shaped band from middle of costa to above tornus; cilia crimson. Hind wing suffused with brilliant blue, the termen and cilia crimson. Underside of fore wing with diffused metallic blue on basal area, and patches beyond cell; hind wing metallic blue except terminal area.

♀ with blue patches on fore legs.

An aberrant specimen has vein 5 of hind wing from lower angle of cell.

Hab. Costa Rica (*Van Patten*) type, (*Rogers*); Panama (*Champion, Trötsch*), Godman-Salvin Coll. *Exp.* 44–46 millim.

968. **Cyanopepla panamensis.** (Plate XV. fig. 4.)

Charidea panamensis, Druce, Biol. Centr.-Am., Het. i. p. 71 (1884); Kirby, Cat. Het. p. 162.

Black; head, thorax, and legs with patches of brilliant blue; abdomen banded with blue. Fore wing with blue spot at base of costa, and streak on vein 1 not quite reaching middle; an oblique orange wedge-shaped band from just below middle of costa to above vein 1 near termen; cilia orange. Hind wing slightly shot with purple; an orange terminal band expanding at vein 3 and not quite reaching tornus.

Hab. Panama, Chiriqui (*Trötsch*), 1 ♂ 1 ♀. *Exp.* 44 millim. Type in Coll. Staudinger, co-type † in Coll. Druce.

*969. **Cyanopepla quadricolor.**

Cyanopepla quadricolor, Feld. Reis. Nov. pl. 102. f. 15 (1874); Kirby, Cat. Het. p. 162.

♂. Head and thorax black, almost entirely suffused with brilliant metallic green; coxæ white; abdomen brilliant metallic green, with black segmental lines and paired dorsal patches on terminal segments; a ventral white fascia. Fore wing black-brown, with some metallic green at base; a short crimson streak below base of median nervure; the termen and cilia pure white, the extremities of the veins yellowish towards apex. Hind wing black, the discal area shot with brilliant blue; a crimson patch on termen with its inner edge dentate and narrowing to apex and vein 2. Underside with the basal area brilliant blue-green except costa of fore wing and inner area of hind wing.

Hab. Colombia, Bogota. *Exp.* 42 millim. Type † in Coll. Rothschild.

*970. **Cyanopepla lystra.** (Plate XV. fig. 23.)

Charidea lystra, Druce, A. M. N. H. (6) xviii. p. 35 (1896).

♂. Head and thorax black, with patches of brilliant metallic blue; legs striped with blue; fore coxæ and a stripe on femora white. Abdomen black, banded with brilliant metallic blue. Fore wing black-brown, with metallic blue spot at base of costa and streak on basal half of inner margin; a crimson spot below base of cell; cilia yellowish at tips. Hind wing black-brown shot with purple; a terminal crimson band from just below apex to above tornus. Underside with the basal half of both wings shot with brilliant metallic blue.

Hab. COLOMBIA. *Exp.* 42 millim. Type ♀ in Coll. Druce.

971. Cyanopepla cinctipennis. (Plate XV. fig. 5.)

Charidea cinctipennis, Wlk. xxxi. p. 97 (1864); Kirby, Cat. Het. p. 161.
Charidea arete, Druce, A. M. N. H. (6) xviii. p. 35 (1896).

♂. Black; head, tegulæ, patagia, and legs with patches of metallic blue-green; coxæ white; abdomen with broad blue-green bands on each segment, the ventral surface with a narrow white stripe. Fore wing with a short crimson streak below base of cell; traces of the crimson of underside showing in and below end of cell; the costa and cilia orange-yellow. Hind wing shot with brilliant blue; a crimson patch with irregular inner edge on terminal area from below apex to below vein 2; cilia orange-yellow. Underside with some metallic blue at base of each wing; fore wing with a large crimson patch in and below end of cell; veins 3, 4 sometimes separate at origin.

♀ with metallic green patch on fore coxæ.

Hab. COLOMBIA, Bogota, 1 ♂, 1 ♀ type. *Exp.*, ♂ 40, ♀ 44 millim.

Subsp. 1. ♀. The crimson patch on underside of fore wing reduced to obsolescent spots in and below end of cell or in end of cell only; the yellow on costa and cilia more or less reduced, the cilia sometimes entirely dark; hind wing with the crimson terminal patch much reduced, often to spots separated by the dark veins.

Hab. ECUADOR (*Buckley*), 3 ♀.

972. Cyanopepla micans.

Charidea micans, Herr.-Schäff. Aussereur. Schmett. f. 233 (1854); Kirby, Cat. Het. p. 162.
Charidea fulgens, Herr.-Schäff. Aussereur. Schmett. f. 234 (1864); Kirby, Cat. Het. p. 162.

♂. *fulgens* Black-brown; head, tegulæ, patagia, thorax, and legs with patches of metallic blue-green; fore coxæ and a stripe on legs white; abdomen with segmental blue-green rings. Fore wing with metallic blue-green at base, and streak on basal part of inner margin; a bright crimson wedge-shaped spot below base of cell; two spots beyond lower angle of cell, between veins 3 and 5. Hind wing brilliant blue; a terminal bright crimson band from below apex, narrowing to near tornus. Underside of both wings with the basal two-thirds metallic blue except on costa; cilia of both wings white at tips.

Ab. 1. Fore wing with an obsolescent crimson streak in lower end of cell.

♀. Fore wing with crimson streak in lower end of cell; underside of both wings with slight metallic blue marks at base; fore wing with crimson patch in and below end of cell confluent with the spots beyond.

Ab. 2. *micans*. Fore wing with the markings orange.

Hab. Colombia, 3 ♂ 4 ♀; Venezuela. *Exp.* 44 millim. Types † *micans* and *fulgens* in Coll. Staudinger.

973. Cyanopepla fastuosa.

Euchromia fastuosa, Wlk. i. 215 (1854); Kirby, Cat. Het. p. 161.
Charidea fulgida, Herr.-Schäff. Aussereur. Schmett. f. 235 (1854).

♂. Fuscous brown; head, tegulæ, patagia, thorax, and legs with patches of metallic blue-green; fore coxæ white; abdomen suffused and banded with metallic blue, the bands narrowing on ventral surface. Fore wing with some metallic blue at base, and short streak on inner margin; crimson spots below base and in end of cell; cilia whitish at apex and towards tornus. Hind wing shot with brilliant blue; the terminal area with a crimson patch from below apex where it is wide, narrowing to a point above tornus. Underside of fore wing brilliant metallic blue below the cell, in basal part of cell, and beyond upper angle; a more or less obsolescent crimson spot beyond lower angle of cell; hind wing brilliant metallic blue.

♀. Fore coxæ with blue patch; abdomen without ventral bands; wings with the metallic blue on underside reduced.

Ab. 1. Fore wing with the crimson spot beyond the cell appearing on upperside.—Brazil.

Hab. Jamaica, 1 ♂, 1 ♀ type; Venezuela; Brazil (*Dohrn*), 1 ♂ 1 ♀. *Exp.*, ♂ 42, ♀ 44 millim. Type † *fulgida* in Coll. Staudinger.

974. Cyanopepla alonzo.

Charidea alonzo, Butl. Journ. Linn. Soc., Zool. xii. p. 415 (1876); id. Ill. Het. i. p. 42, pl. 10. f. 11; Kirby, Cat. Het. p. 161.
Charidea imogena, Butl. Journ. Linn. Soc., Zool. xii. p. 415 (1876); Kirby, Cat. Het. p. 161.

♂. Fuscous brown; head, tegulæ, patagia, thorax, and legs with patches of metallic blue-green; fore coxæ white; abdomen suffused and banded with metallic blue. Fore wing with metallic green streak below base of costa and on inner margin; crimson spots below base and in end of cell; a more or less obsolescent oblique crimson bar beyond the cell between veins 7 and 3; cilia white at tips. Hind wing shot with brilliant blue; a crimson patch on terminal area from below costa narrowing to above tornus, its inner edge irregular. Underside with metallic blue in and below cell and below upper angle of fore wing and on hind wing; the oblique bar prominent.

♀ with blue patch on fore coxæ and the metallic blue on underside of wings reduced.

Hab. Colombia, Bogota (*Vergara*), 1 ♀; Venezuela, 2 ♀, type; Peru, type *imogena*, Callao (*J. J. Walker*). *Exp.* 46 millim.

975. Cyanopepla arrogans.

Euchromia arrogans, Wlk. i. 214 (1854); Butl. Ill. Het. i. p. 42, pl. 13. f. 12; Druce, Biol. Centr. Am., Het. i. p. 71; Kirby, Cat. Het. p. 161.
Charidea costaricensis, Druce, Biol. Centr.-Am., Het. i. p. 71, pl. 8. f. 20; Kirby, Cat. Het. p. 161.

♂. Black; head, tegulæ, patagia, thorax, and legs largely marked with metallic blue-green; coxæ and inner side of fore-legs white; abdomen suffused and banded with metallic blue on each segment. Fore wing with short metallic blue basal streaks below costa, on vein 1 and inner margin; a wedge-shaped orange patch below base of cell; a quadrate spot in end of cell; an oblique band from below costa beyond middle to near middle of termen. Hind wing with the basal area shot with blue; an orange-scarlet patch on termen with irregular inner edge from just below costa to near tornus. Underside with the basal half of fore wing and the hind wing shot with metallic blue.

♀ with blue patches on coxæ.

Ab. 1. *costaricensis*. Hind wing with the terminal patch orange.—COSTA RICA, PANAMA.

Hab. MEXICO, Orizaba (*Godman*), Cordova (*Hoege*); HONDURAS (*Blancaneaux*); GUATEMALA (*Champion*); COSTA RICA (*Rogers*, *Van Patten*), type *costaricensis*; PANAMA (*Champion*): Godman-Salvin Coll.; VENEZUELA, type. *Exp.*, ♂ 42–44, ♀ 50 millim.

976. Cyanopepla xenodice.

Charidea xenodice, Druce, Biol. Centr.-Am., Het. i. p. 72, pl. 8. ff. 18, 19 (1884); Kirby, Cat. Het. p. 161.

Black-brown; head, tegulæ, patagia, thorax, and legs with patches of metallic green; abdomen with segmental green rings. Fore wing with metallic green point at base of costa; a large orange lunule beyond the cell extending from vein 8 to 3. Hind wing slightly shot with blue; a triangular orange patch beyond the cell. Underside of fore wing with the basal and inner areas suffused with metallic blue.

Ab. 1. Fore wing with the patch beyond the cell pale.

Hab. COSTA RICA (*Rogers*), 2 ♂, 3 ♀, type, Godman-Salvin Coll. *Exp.* 40 millim.

977. Cyanopepla submacula.

Euchromia submacula, Wlk. i. 214 (1854); Butl. Ill. Het. i. p. 41, pl. 13. f. 7; Druce, Biol. Centr.-Am., Het. i. p. 70; Kirby, Cat. Het. p. 161.

♂. Black-brown; head, tegulæ, patagia, thorax, and legs with patches of metallic blue-green; fore coxæ white; abdomen with segmental blue lines. Fore wing with short metallic green streak above base of vein 1, and longer streaks below costa and on inner margin; a slight crimson streak below costa, and a fascia in submedian interspace extending to beyond middle and expanding at extremity, often with some orange on it; an oblique orange band with some crimson on its edges from just below costa beyond middle to near middle of tornus. Hind wing with the basal area shot with blue; an obsolescent crimson spot beyond cell, and a short streak on vein 1 below end of cell, both prominent on underside and with an additional spot in end of cell; cilia tipped with white in places; veins 3, 4 very shortly stalked; in an aberrant specimen the cell is rather shorter, vein 5 from just above angle, and 3, 4 on a long stalk.

♀ with blue patches on fore coxæ.

Hab. VENEZUELA, 1 ♂ 2 ♀, type. *Exp.*, ♂ 46, ♀ 52 millim.

Subsp. 1. Fore wing with the fascia below cell broad and regular, usually no trace of the crimson streak below costa; underside of hind wing without the spot in cell; a diffused blue spot along median nervure.

Hab. MEXICO, Tabasco (*H. H. Smith*); GUATEMALA (*Champion*); COSTA RICA; PANAMA (*Ribbe*): Godman-Salvin Coll. *Exp.* 40–56 millim.

978. Cyanopepla jucunda.

Euchromia jucunda, Wlk. i. 216 (1854); Kirby, Cat. Het. p. 162.
Charidea fastuosa, Ménétr. Cat. Lép. Pétersb. ii. p. 143, pl. 14. f. 8 (1857), nec Wlk.

♂. Black; head, tegulæ, patagia, thorax, and legs with patches of metallic blue; coxæ with white patches; abdomen banded with metallic blue. Fore wing with metallic blue streaks at base, in cell, and on inner margin; a bright crimson streak in submedian interspace extending to beyond middle and expanding somewhat towards extremity; an oblique crimson band from below costa beyond middle to near middle of termen. Hind wing with diffused metallic blue streaks on median nervure, vein 1, and on inner margin to beyond middle. Underside of fore wing with diffused metallic blue along median nervure, the crimson fascia reduced to a spot below end of cell; hind wing suffused with blue to near termen, leaving the apical area black with a blue spot.

♀ without white on coxæ; the blue on underside reduced to streaks.

Hab. BRAZIL, Theresopolis (*Warry*), Espiritu Santo, Rio Janeiro, type. *Exp.* 36 millim.

979. Cyanopepla griseldis.

Charidea griseldis, Druce, Biol. Centr.-Am., Het. i. p. 72, pl. 8. f. 21 (1884) Kirby, Cat. Het. p. 162.

♂. Black; head, tegulæ, patagia, shoulders, thorax, and legs with patches of metallic blue, patagia with curved crimson stripes; coxæ white; abdomen with slight segmental blue rings; wings very slightly shot with blue. Fore wing with very broad crimson fascia from just below costa to vein 1, its upper edge curving to its extremity on terminal area above vein 3, its lower edge excised towards extremity and indented at vein 2; cilia white at apex and above tornus. Hind wing with the cilia white at apex. Underside with crimson patch on costa of hind wing; the inner area of fore wing and hind wing except terminal area shot with opalescent blue.

♀ with the coxæ dark; underside not shot with blue.

Hab. Mexico, Durango (*Forrer*), 1 ♂ 2 ♀, type, Godman-Salvin Coll. *Exp.* 40 millim.

980. Cyanopepla bella.

Glaucopis bella, Guér. Icon. R. Anim., Ins. p. 502 (1854); Druce, Biol. Centr.-Am., Het. i. p. 72; Kirby, Cat. Het. p. 162.
Euchromia gloriosa, Wlk. i. 215 (1854); Butl. Ill. Het. i. p. 13, pl. 10. f. 10.
Cyanopepla arcuata, Clem. Proc. Acad. Nat. Sci. Philad. 1860, p. 545 (1861); Kirby, Cat. Het. p. 162.
Charidea bivulnerata, Grote & Rob. Ann. Lyc. N. H. N. York, viii. p. 365, pl. 13. f. 2 (1867).
Charidea [illegible], Boisd. Lep. Guat. p. 82 (1870).
Charidea ocimia, Boisd. Lep. Guat. p. 82 (1870).

♂. Black; head, tegulæ, patagia, thorax, and legs with patches of brilliant metallic blue; fore coxæ white; abdomen suffused and banded with blue. Fore wing with short metallic blue streak below base of costa, a streak on vein 1 extending to beyond middle, and a streak on inner margin extending to middle; a crimson patch formed of conjoined streaks below costa, in and below cell, and either conjoined to or separate from an elliptical oblique spot beyond the cell between veins 5 and 3; some metallic blue beyond upper angle of cell; cilia white at tips. Hind wing with the basal area shot with brilliant blue; cilia sometimes white at tips above tornus. Underside with brilliant metallic blue on fore wing below the cell and beyond upper angle, and on hind wing except on terminal area.

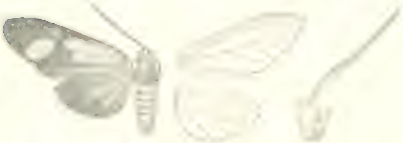

Fig. 240.—*Cyanopepla bella*, ♂. 1/1.

♀ with blue patch on fore coxæ; underside of wings with a little metallic blue at base only.

The typical form is an aberration with the markings of fore wing orange, the spot conjoined to the fascia, but more commonly separate.

Ab. 1. *gloriosa*. Fore wing with the markings crimson, the spot separate from the fascia, which is narrow and bifid at extremity, in *bivulnerata* broad.

Ab. 2. *ocimia*. Fore wing with the crimson spot conjoined to the fascia.

Hab. Mexico, Cuesta de Misantla (*Trujillo*), Orizaba (*Godman*), Coatepec (*Brooks*), Jalapa (*Hoege*); Guatemala (*Champion*, *Rodriquez*) and type *gloriosa*; Br. Honduras (*Blancaneaux*): Godman-Salvin Coll. *Exp.* 40–44 millim.

Cocoon oval, bright lemon-yellow, thin, and finely woven of silk mixed with the yellow larval hairs.

981. **Cyanopepla phœnicia**, n. sp. (Plate XV. fig. 6.)

Black; head, thorax, and abdomen largely suffused with brilliant blue; palpi in front, coxæ, stripes on legs, and ventral stripe on abdomen white. Fore wing with brilliant blue point at base of costa and short streaks above and below base of vein 1; a crimson fascia in, below, and beyond lower angle of cell from near base to near termen, widening exteriorly. Hind wing with the basal half shot with brilliant blue; an elongate crimson patch in, below, and beyond end of cell extending to near termen; cilia white at apex of fore wing and tornus of hind wing.

Hab. Bolivia, Rio Songo (*Garlepp*), 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 36 millim.

982. **Cyanopepla julia.** (Plate XV. fig. 25.)

Charidea julia, Druce, P. Z. S. 1883, p. 381; Kirby, Cat. Het. p. 162.

Head, thorax, and abdomen black suffused with brilliant blue; coxæ and ventral surface of abdomen white. Fore wing black, with brilliant blue streaks from base to middle of wing below costa, on median nervure, and above and below vein 1; a broad oblique crimson band from below costa across upper angle of cell to near termen above vein 2. Hind wing brilliant blue, the termen and apical area black; cilia white at tips.

Hab. Brazil, Casa Branca, 1 ♀; Peru, Chanchamayo (*Whitely*). *Exp.* 40 millim. Type † in Coll. Druce.

983. **Cyanopepla orbona.**

Charidea orbona, Druce, P. Z. S. 1893, p. 283, pl. 19. f. 2.

♂. Black; head, thorax, and legs with patches of metallic blue; abdomen with dorsal and lateral blue stripes and ventral white stripe. Fore wing with slight blue streak below basal half of costa; a broad oblique postmedial orange band from below costa to near termen above vein 2. Underside of both wings with blue streaks in cell.

Hab. Brazil, Sta. Catharina, 1 ♂. *Exp.* 44 millim. Type † in Coll. Druce.

*984. **Cyanopepla imperialis.**

Charidea imperialis, Druce, P. Z. S. 1883, p. 380, pl. 40. f. 2; Kirby, Cat. Het. p. 162.

♀. Head, thorax, and abdomen black suffused with brilliant blue. Fore wing black-brown, with blue-green point at base of costa, a streak above vein 1 extending to middle, and short streak on base of inner margin; a large oblique crimson patch from subcostals in and beyond end of cell to above tornus. Hind wing brilliant blue, the apical area black.

Hab. Ecuador, Chiguinda (*Buckley*). *Exp.* 38 millim. Type † in Coll. Druce.

*985. Cyanopepla amata. (Plate XV. fig. 27.)

Charidea amata, Druce, P. Z. S. 1890, p. 494; Kirby, Cat. Het. p. 161.

♀. Head, thorax, and abdomen black, mostly suffused with brilliant blue; coxæ, stripes on legs, and a ventral stripe on abdomen white. Fore wing with blue spot on base of costa and a large patch below base of cell; a crimson patch in, below, and beyond lower end of cell. Hind wing brilliant metallic blue, the apical area black; a crimson subterminal patch beyond lower angle of cell. Underside of fore wing with the crimson patch filling the whole end of cell.

♂. Hind wing with the crimson patch almost obsolete on upperside.

Hab. Colombia (*Carder*). Type † ♀ in Coll. Druce, ♂ in Coll. Staudinger. *Exp.* 42 millim.

986. Cyanopepla hurama.

Charidea hurama, Butl. Journ. Linn. Soc., Zool. xii. p. 416 (1876); id. Ill. Het. i. p. 42, pl. 18. f. 8; Kirby, Cat. Het. p. 162.
Charidea subgloriosa, Staud. Deutsche Ent. Zeit., Lep. vii. p. 83 (1894).

♂. Black-brown; head, tegulæ, patagia, thorax, and legs with patches of metallic blue-green; fore coxæ white; abdomen suffused and banded with blue. Fore wing with short metallic blue streaks at base below origin of vein 2 and beyond upper and lower angles of cell; an elliptical crimson spot below base of cell, an oblique crimson bar beyond the cell from above vein 5 to below vein 4, and sometimes a slight streak in end of cell; cilia usually yellowish white. Hind wing suffused with brilliant blue, the cilia yellowish white. Underside with metallic blue in and below cell and on hind wing except terminal area.

♀ with blue patch on coxæ; a more prominent crimson patch in end of cell of fore wing, and only a little blue at base of wings on underside.

Ab. 1. *subgloriosa*. Fore wing with more or less developed postmedial series of silvery green streaks in the interspaces.

Hab. Ecuador, 3 ♂, 4 ♀, type; Bolivia; Amazons. *Exp.* 44 millim. Type † *subgloriosa* in Coll. Staudinger.

*987. Cyanopepla pretiosa.

Charidea pretiosa, Burm. Descr. Rep. Arg., Atlas, p. 59 (1880); Kirby, Cat. Het. p. 162.

Black-brown; head, thorax, abdomen, and legs suffused with metallic blue; fore legs with the coxæ, femora, and tibiæ white on inner side. Fore wing with some blue patches on basal half; crimson spots in and below base of cell, and an oblique spot beyond lower angle of cell. Hind wing suffused with brilliant blue; cilia of both wings white.

Hab. Argentina, Tucuman. *Exp.* 42 millim. This species is unknown to me.

*988. **Cyanopepla perilla.** (Plate XV. fig. 8.)

Charidea perilla, Druce, P. Z. S. 1883, p. 381; Kirby, Cat. Het. p. 161.

♀. Head and thorax black, with patches of metallic blue; abdomen dorsally suffused with blue, and with segmental blue-green lines. Fore wing brownish black, with blue point at base of costa; crimson spots below base and beyond end of cell. Hind wing brownish black, with large crimson patch in, below, and beyond cell from near base to near termen. Underside of both wings with some blue below base of costa and a large crimson patch in, below, and beyond cell; hind wing with crimson streak on inner area.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 40 millim. Type † in Coll. Druce.

989. **Cyanopepla basimacula**, n. sp. (Plate XV. fig. 24.)

♀. Black; head, tegulæ, patagia, thorax, and legs with patches of metallic blue-green; abdomen with broad blue bands above, narrow below. Fore wing with blue-green marks at base, and small crimson spot below base of cell. Hind wing with diffused brilliant blue area above and below median nervure; cilia white at tips. Underside of both wings brilliant metallic blue to beyond middle; fore wing with large crimson patch beyond the cell between veins 8 and 2; hind wing with smaller patch between veins 5 and 2.

Hab. Amazons, Banos (*Stewart*), 1 ♀ type. *Exp.* 42 millim.

*990. **Cyanopepla bertha.**

Charidea bertha, Druce, P. Z. S. 1883, p. 381, pl. 40. f. 1; Kirby, Cat. Het. p. 161.

♀. Black-brown; head, thorax, and legs with patches of metallic green; abdomen with segmental green lines. Fore wing with green point at base of costa and crimson spot below base of cell. Hind wing shot with brilliant blue; a crimson patch beyond cell, with a band from lower end curving round below end of cell; cilia whitish at tips. Underside of fore wing with curved crimson band beyond and below end of cell.

Hab. Ecuador, Sarayacu (*Buckley*). *Exp.* 40 millim. Type † in Coll. Druce.

*991. **Cyanopepla obscura.** (Plate XV. fig. 20.)

Cyanopepla obscura, Druce, A. M. N. H. (7) i. p. 406 (1898).

♂. Head, thorax, and abdomen black; palpi, frons, tegulæ, patagia, and legs marked with metallic blue; abdomen with narrow segmental green lines. Fore wing with slight metallic blue markings at base of costa and inner margin; a small crimson spot below base of cell. Hind wing with small crimson spot at upper angle of cell; cilia whitish at tips. Underside of both wings metallic blue to beyond middle, with irregular outer edge.

Hab. Peru; 1 ♂ type † in Mus. Oxon. *Exp.* 38 millim.

992. Cyanopepla buckleyi.

Charidea buckleyi, Druce, P. Z. S. 1883, p. 381, pl. 40. f. 4; Kirby, Cat. Het. p. 161.

Black-brown; head, thorax, and legs with patches of brilliant golden green; abdomen with segmental green lines above, wholly green below. Fore wing with slight green marks at base; a crimson spot below base of cell; the cilia orange. Hind wing with crimson spots below veins 2, 3, 4, and patch beyond the cell; the cilia orange. Underside of fore wing with small crimson spot beyond the cell.

Hab. Ecuador, Sarayacu (*Buckley*), type † in Coll. Druce; Bolivia, Chaco, 1 ♀. *Exp.* 52 millim.

*993. Cyanopepla chloë. (Plate XV. fig. 1.)

Charidea chloe, Druce, P. Z. S. 1883, p. 381; Kirby, Cat. Het. p. 161.

♂. Dark brown; head, thorax, and legs with patches of brilliant metallic green; abdomen with segmental green lines above and bands below. Fore wing with small green spot at base of costa and small crimson spot below base of cell. Hind wing with postmedial crimson patch below costa; cilia of both wings orange. Underside with the basal half of both wings brilliant blue.

Hab. Ecuador, Chiguinda. *Exp.* 36 millim. Type † in Coll. Druce.

994. Cyanopepla agyrtidia, n. sp. (Plate XV. fig. 21.)

♂. Black shot with blue; frons white; tegulæ and patagia with white patches; legs striped with white; abdomen with the ventral surface white. Fore wing with elongate hyaline patch below the cell and vein 2 to near termen; an oblique postmedial band between veins 4 and 7. Hind wing with very broad hyaline fascia in, below, and beyond cell extending to near termen; inner margin white.

Hab. Bolivia, Chaco (*Garlepp*), 1 ♂ type. *Exp.* 28 millim.

995. Cyanopepla chelidon.

Metastatia chelidon, Druce, P. Z. S. 1893, p. 285, pl. 19. f. 3.

♀. Head, thorax, and abdomen black shot with brilliant blue; base of palpi, gulæ, and coxæ white; abdomen with slender dorsal white stripe, the ventral surface black with two broad white stripes. Fore wing black; the costal area shot with blue; metallic blue fasciæ on subcostal nervure and vein 1 to beyond middle; an oblique hyaline band from upper angle of cell to vein 2, with diffused blue on its outer edge; cilia white at apex. Hind wing shot with brilliant blue, leaving the termen irregularly black; a hyaline streak in lower end of cell; a hyaline fascia below the cell and between veins 2 and 5 to near termen.

Hab. Colombia, 1 ♀; Upper Amazons, 1 ♀. *Exp.* 46 millim. Type † in Coll. Druce.

996. Cyanopepla glaucopoides. (Plate XV. fig. 11.)

Dioptis glaucopoides, Wlk. ii. 325 (1854); Kirby, Cat. Het. p. 163.

♀. Black; palpi white at base; vertex of head, tegulæ, and thorax with patches of metallic blue; patagia striped with blue; legs striped with white; abdomen with lateral patches of blue on basal segments, dorsal and lateral blue stripes, and sublateral white stripes. Fore wing with metallic blue streaks on subcostal nervure and vein 1 to beyond middle; an oblique semihyaline white patch from upper angle of cell to below vein 3, the apex white. Hind wing with hyaline fascia edged with blue in, below, and beyond cell; veins 3, 4 separate at origin.

Hab. Amazons, Para (*Bates*), 2 ♀, type. *Exp.* 40 millim.

*997. Cyanopepla ribbei.

Euagra ribbei, Druce, Biol. Centr.-Am., Het. i. p. 153, pl. 14. f. 14 (1885); Kirby, Cat. Het. p. 179.

♂. Black shot with blue; 1st joint of palpi, back of head, and neck orange; frons white at sides; coxæ, streaks on legs, and ventral surface of abdomen white. Fore wing with oblique hyaline postmedial band from below costa to vein 3 near termen. Hind wing with curved series of slight semihyaline streaks below veins 2 to 5; cilia white at tips.

Hab. Panama, Chiriqui (*Ribbe*), 1 ♂ type † in Coll. Staudinger. *Exp.* 44 millim.

*998. Cyanopepla masia.

Euagra masia, Dognin, Le Nat. xi. p. 58 (1889); id. Lép. Loja, pl. iv. f. 18; Kirby, Cat. Het. p. 179.

♀. Black shot with brilliant blue; 1st joint of palpi, neck, and gulæ crimson; frons with lateral white lines; abdomen with fine whitish dorsal line. Fore wing broad; a broad hyaline band beyond the cell from vein 7 to just below vein 2, curving round below end of cell and with the veins crossing it clothed with blue and white scales. Hind wing with traces of hyaline streaks between veins 3 and 5, more prominent on underside; cilia tipped with white.

Hab. Ecuador, Zamora. *Exp.* 46 millim. Type † in Coll. Dognin.

Genus **TRICHODESMA**, nov.

Type, *T. ursula.*

Proboscis fully developed; palpi upturned and reaching vertex of head; antennæ bipectinate, with very short branches dilated at extremity; tibiæ with the spurs moderate; abdomen dorsally clothed with rough hair at base. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9, 10 stalked. Hind wing with the cell long; vein 2 from well before angle; 3, 4 from angle; 5 from well above angle; 6, 7 from upper angle; underside in male clothed with rough hair.

SECT. I. Fore wing with vein 11 stalked with 7, 8, 9, 10.

999. Trichodesma ursula.

Noctua ursula, Stoll, Pap. Exot. iv. pl. 345. E (1781); Kirby, Cat. Het. p. 180.

♂. Black-brown; palpi in front, frons, a bar on vertex of head, and line behind the eyes yellow; tegulæ with yellow patches; patagia with greyish lines; coxæ and femora whitish; abdomen yellow below. Fore wing with the veins streaked with yellowish; an oblique yellow band from costa beyond middle to termen above tornus. Hind wing with the basal area on underside greyish.

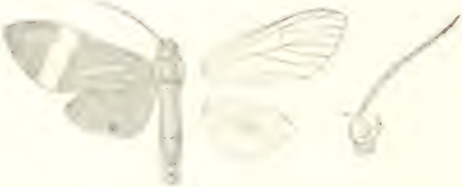

Fig. 241.—*Trichodesma ursula*, ♂. ½.

Hab. SURINAM; AMAZONS, R. Sapo (*Trail*), Tapajos, Ega (*Bates*). *Exp.* 42 millim.

SECT. II. Fore wing with vein 11 from cell.

A. Fore wing black-brown.
  a. Fore wing with orange spots in and beyond cell .... *imitata*.
  b. Fore wing with oblique orange band beyond cell .... *obliqua*.
B. Fore wing uniform pale yellowish brown........................ *uniformis*.

*1000. Trichodesma imitata.

Diabena imitata, Druce, P. Z. S. 1883, p. 382; Kirby, Cat. Het. p. 904.

♀. Black-brown; frons, vertex of head, neck, coxæ, and abdomen tinged with purple-blue. Fore wing with rounded orange spot in end of cell, and a quadrate spot beyond the cell from vein 7 to just below 5. Hind wing with orange fascia in and below cell, conjoined to a rounded patch beyond the cell. Underside of fore wing with quadrate patch in end of cell conjoined to a streak below the cell from near base.

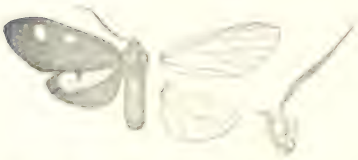

Fig. 242.—*Trichodesma imitata*, ♀. ½.

Hab. ECUADOR (*Buckley*). *Exp.* 40 millim. Type † in Coll. Druce.

*1001. Trichodesma obliqua. (Plate XV. fig. 18.)

Trichodesma obliqua, Schaus, J. N. Y. Ent. Soc. vi. p. 140 (1898).

♂. Black-brown; palpi whitish in front; frons whitish, orange above; tegulæ in front and shoulders orange; legs streaked with white; abdomen with segmental orange rings, the ventral surface white. Fore wing with fine orange streaks on base of subcostal nervure and vein 1; an oblique postmedial orange band across end of cell from below costa to vein 2. Hind wing with broad orange fascia in and below cell from base to beyond end of cell.

Hab. Brazil, Rio Janeiro, 1 ♂ type † in Coll. Schaus. *Exp.* 34 millim.

1002. Trichodesma uniformis, n. sp. (Plate XV. fig. 19.)

♀. Pale yellow-brown; palpi at base, frons, basal joints of antennæ, marks behind eyes, and throat crimson; abdomen fuscous, with lateral lines towards extremity, the anal tufts and segmental lines on ventral surface crimson. Fore wing thinly scaled. Hind wing paler.

Hab. Brazil, Petropolis (*Doer*), 1 ♀ type. *Exp.* 42 millim.

Genus COREURA.

Type.
Coreura, Wlk. xxxi. 142 (1864) .... *euchromoides.*
Pseudocharidea, Druce, Biol. Centr.-Am., Het. ii. p. 353 (1897) .... *eion.*

Proboscis fully developed; palpi porrect, straight; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs short; head and thorax clothed with woolly hair. Fore wing broad, vein 3 from angle of cell; 4 from just above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 usually from cell. Hind wing with veins 3, 4 from angle of cell; 5 from well above angle; 7 from before upper angle.

Sect. I. Fore wing of male with streaks denuded of scales above and below vein 5; veins 5 and 6 becoming coincident after half their length; 11 stalked with 7, 8, 9, 10, and the costa somewhat lobed at middle; palpi not extending beyond frons; female with vein 5 of fore wing aborted, as a short spur from well above angle of cell; 11 from cell; hind wing with vein 5 from below middle of discocellulars; palpi extending about length of head.

A. Wings with crimson markings.
  a. Tegulæ crimson .... *euchromioides.*
  b. Tegulæ dark .... *lysimachides.*
B. Wings with orange markings .... *eion.*

1003. Coreura euchromioides.

Coreura euchromioides, Wlk. xxxi. 142 (1864); Kirby, Cat. Het. p. 189.

♂. Palpi except 3rd joint, head, neck, and tegulæ crimson; thorax and abdomen blue-black. Fore wing black with slight blue tinge, especially at base of inner margin; a rather narrow oblique crimson band from costa beyond middle, where it expands to termen just above tornus. Hind wing brilliant blue, the termen black.

Underside shot with blue; fore wing with the band wider than above; hind wing with terminal series of small triangular crimson patches from apex to vein 1.

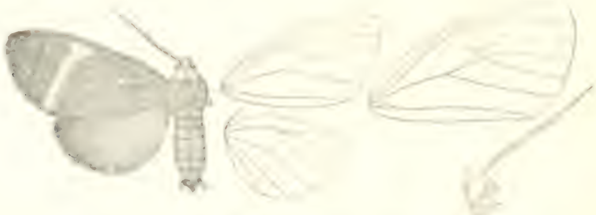

Fig. 243. – *Coreura euchromioides*, ♂. ½.

♀ with the band of fore wing wider and sending a short spur below costa towards apex; hind wing with a terminal crimson band on upperside with dentate inner edge.

Hab. Colombia, Bogota, 2 ♂ type, 2 ♀ (*Buckley*). *Exp.*, ♂ 52, ♀ 56 millim.

*1004. Coreura lysimachides. (Plate XV. fig. 14.)

Coreura lysimachides, Druce, A. M. N. H. (6) xx. p. 304 (1897).

♂. Head crimson; 3rd joint of palpi and antennæ black-brown; thorax and abdomen black-brown tinged with metallic blue; fore coxæ white in front. Fore wing black-brown, with oblique waved postmedial narrow crimson band from below costa to just above tornus. Hind wing shot with brilliant blue; a terminal crimson band with dentate inner edge. Underside of fore wing shot with blue to the crimson band, which is wider.

Hab. Ecuador, type + in Coll. Druce; Peru. *Exp.* 40 millim.

1005. Coreura cion.

Pseudocharidea cion, Druce, Biol. Centr.-Am., Het. ii. p. 353, pl. 72. f. 26 (1897).

♂. Black; head, thorax, and abdomen suffused with brilliant blue; coxæ white. Fore wing with the base and a streak in cell metallic blue; a broad oblique orange band from middle of costa to just above inner margin near tornus. Hind wing with the basal half suffused with brilliant blue; an orange terminal band not quite reaching apex or tornus and expanding into a patch between veins 2 and 3.

Hab. Costa Rica (*Underwood*); Panama, Chiriqui (*Trötsch*), 1 ♂, type † in Coll. Staudinger. *Exp.* 42 millim.

Sect. II. Fore wing of male normal; vein 5 from lower angle of cell; hind wing with vein 5 from well above lower angle.

1006. Coreura atavia, n. sp.

♂. Black glossed with blue; palpi except 3rd joint, head behind eyes, and throat crimson. Fore wing with obliquely curved crimson band from costa beyond middle to termen just above tornus, narrowing above vein 2, and the veins crossing it whitish. Hind wing with terminal crimson band with sinuous inner edge.

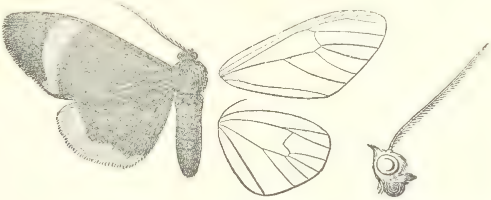

Fig. 244.—*Coreura atavia*, ♂. 1/1.

Hab. Brazil (*Dohrn*), Zeller Coll., 1 ♂ type; Espiritu Santo, 1 ♂ 1 ♀. *Exp.* 50 millim.

Genus **ACLYTIA**.

Type.
Aclytia, Hübn. Verz. p. 123 (1827) .... *heber.*
Percote, Wlk. ii. 492 (1854) .... *signatura.*

Proboscis fully developed; palpi upturned to just above vertex of head; antennæ bipectinate, with short branches dilated at extremity; fore tibiæ of male with a tuft of long hair contained in a fold; mid and hind tibiæ with the spurs moderate; abdomen dorsally clothed with rough hair at base. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the cell long, the lower angle much produced, the discocellulars highly angled and with a veinlet in cell; vein 2 from long before angle; 3, 4 on a long stalk; 5 from far above angle of cell; 6, 7 from upper angle or very shortly stalked; 8 often present as an aborted portion not reaching costa; the basal part of costa lobed.

A. Abdomen black and blue above.
  a. Abdomen with white ventral stripe.
    a^1. Fore wing with oblique postmedial orange band ...... *mariamne.*
    b^1. Fore wing without oblique postmedial band.
      a^2. Tegulæ and shoulders with orange spots .... *flavigutta.*
      b^2. Tegulæ and shoulders without orange spots.
        a^3. Fore wing with the veins paler at base; a more or less prominent yellow spot beyond the cell on upper or underside .... *punctata.*
        b^3. Fore wing with the veins streaked with black, no trace of yellow spot .... *petra.*
  b. Abdomen with orange ventral stripe in ♂, sometimes no stripe in ♀.
    a^1. Fore wing with orange spot or oblique band.
      a^2. Fore wing of ♂ with oblique orange postmedial band; abdomen suffused with blue .... *gynamorpha.*
      b^2. Fore wing of ♂ with discoidal orange spot; abdomen banded with blue .... *heber.*
    b^1. Fore wing without orange markings.
      a^2. Tegulæ and shoulders with red spots .... *ventralis.*
      b^2. Tegulæ and shoulders without spots .... *terra.*
B. Abdomen black and golden green above .... *bractea.*
C. Abdomen orange .... *signatura.*

*1007. Aclytia mariamne.

Charidea mariamne, Druce, P. Z. S. 1885, p. 519, pl. 32. f. 3; Kirby, Cat. Het. p. 162.

♂. Head, thorax, and abdomen black suffused with brilliant blue; palpi at base, coxæ, and a ventral stripe to abdomen bluish white. Wings black; fore wing to near middle, hind wing to beyond middle brilliant blue with irregular outer edge; an oblique bright orange band from middle of costa, below which it is contracted to just above tornus.

Hab. Colombia, Bogota (*Coles*). *Exp.* 38 millim. Type † in Coll. Druce.

1008. Aclytia flavigutta.

Euchromia flavigutta, Wlk. i. 246 (1854); Butl. Ill. Het. i. p. 41, pl. 8. f. 3; Kirby, Cat. Het. p. 160.
Pelochyta [illegible], Wlk. xxxi. 106 (1864), ♀. Kirby, Cat. Het. p. 160.

♂. Black-brown; palpi whitish in front; back of head, tegulæ, and shoulders with orange spots; coxæ white; femora striped with white; abdomen with metallic blue lateral bands interrupted on dorsum, the ventral surface with a white stripe to near extremity. Fore wing with the veins yellowish; a round orange discocellular spot. Hind wing black, with hyaline streaks below the cell and vein 1, and in and beyond lower end of cell.

♀ with the orange spot on fore wing replaced by an oblique band.

Hab. Brazil, 2 ♂, type, São Paulo (*Jones*). *Exp.* 34 millim.

1009. Aclytia punctata. (Plate XV. fig. 12.)

Aclytia punctata, Butl. Journ. Linn. Soc., Zool. xii. p. 414 (1876); Druce, Biol. Centr.-Am., Het. i. p. 70; Kirby, Cat. Het. p. 160.

♂. Black-brown; palpi at base white; coxæ white; legs striped with white; abdomen with lateral metallic blue bands not meeting on dorsum, the ventral surface with a white stripe not reaching extremity. Fore wing with the veins of basal half slightly paler; a slight yellow spot on discocellulars. Hind wing black, with broad hyaline streaks below the cell and vein 1, and in and beyond end of cell.

Ab. 1. Fore wing without yellow spot on upperside.—Guatemala.

Ab. 2. Fore wing with large rounded yellow discocellular spot.—Costa Rica; Brazil.

Hab. Honduras, 1 ♂ type, and 1 ♂ (*Blancaneaux*), ab. 1; Guatemala (*Champion*), 1 ♂, ab. 1; Costa Rica (*Zurcher*), 2 ♂, ab. 2: Godman-Salvin Coll.; Brazil, Santarem (*Bates*), 1 ♂. *Exp.* 30–36 millim.

1010. Aclytia petra.

Aclytia petra, Schaus, P. Z. S. 1892, p. 276, and Am. Lep. pl. i. f. 17.

♂. Black-brown; frons with blue patch; palpi streaked with white; frons at sides, basal joint of antennæ, and back of head with white points; some white behind eyes; abdomen with lateral metallic blue patches on each segment, the ventral surface white to near extremity. Fore wing with the veins black. Hind wing hyaline; the veins, margins, and a terminal band expanding towards apex and tornus black.

Hab. Peru, 1 ♂. *Exp.* 34 millim. Type † in Coll. Schaus.

1011. Aclytia gynamorpha, n. sp.

Aclytia flavigutta, Butl. Ill. Het. i. p. 41, pl. 8. f. 3 (1877), nec Wlk.

♂. Black-brown; palpi at base, frons, basal joint of antennæ, back of head, tegulæ, and coxæ with orange markings; abdomen suffused with brilliant metallic blue, the ventral surface with orange streak not reaching extremity. Fore wing with the veins yellowish on basal half; an oblique orange band from just below costa beyond middle, not quite reaching tornus. Hind wing black with slight blue suffusion; hyaline streaks below cell and vein 1, and in and beyond lower angle of cell.

Hab. Amazons, Santarem (*Bates*), type, R. Jutahi and Jurua (*Trail*). *Exp.* 34 millim.

1012. Aclytia heber.

Sphinx heber, Cram. Pap. Exot. iii. pl. 287. A (1780); Druce, Biol. Centr.-Am., Het. i. p. 69; Kirby, Cat. Het. p. 160.
Sphinx halys, Stoll, Pap. Exot. iv. pl. 357. C.
Aclytia flaviventris, Möschl. Stett. ent. Zeit. xxxiii. p. 349 (1872); Kirby, Cat. Het. p. 160.

♂. Black-brown; palpi at base, two points on frons below antennæ, two patches at back of head, stripes on shoulders, and coxæ orange; abdomen with metallic blue dorsal bands, the ventral surface with an orange stripe not reaching extremity. Fore wing with the veins pale on basal half; a discocellular yellow spot from costa just beyond middle to vein 5. Hind wing black slightly

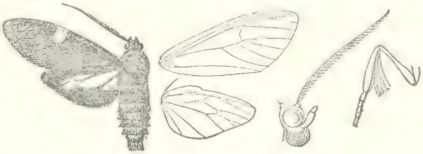

Fig. 245.—*Aclytia heber*, ♂. $\frac{1}{1}$.

suffused with blue; hyaline streaks below the cell and vein 1, in and beyond lower end of cell.

♀ with the spot on fore wing replaced by an oblique band reaching tornus.

Hab. Mexico, Jalapa (*Trujillo*), Orizaba (*Flohr*); Guatemala (*Champion, Rodriguez*); Costa Rica (*Underwood*): Godman-Salvin Coll.; British Honduras; Cuba; Trinidad; Surinam; Brazil, Rio Janeiro. *Exp.* 38 millim. Type + *flaviventris* in Coll. Staudinger.

1013. Aclytia ventralis.

Glaucopis ventralis, Guér. Icon. Règ. Anim., Ins. p. 503 (1844); Kirby, Cat. Het. p. 160.
Aclytia conspicua, Druce, Biol. Centr.-Am., Het. i. p. 70, pl. 8. f. 23 (1884); Kirby, Cat. Het. p. 160.
Glaucopis [illegible], Schaus, Ent. Am. v. p. 89 (1889); Kirby, Cat. Het. p. 160.

♂. Fuscous black; vertex of head with metallic blue spot; tegulæ and shoulders with orange-red points; coxæ orange; abdomen with dorsal series of metallic blue points and lateral bands, the ventral surface with orange stripe not reaching extremity. Hind wing with broad hyaline streaks below cell and vein 1, and in and beyond end of cell.

♀ without orange on coxæ.

Hab. Mexico, Jalapa, Cuesta de Misantla (*Trujillo*); Guatemala, (*Champion*); Costa Rica (*Underwood*); Panama (*Champion*), type *conspicua*: Godman-Salvin Coll. *Exp.*, ♂ 36, ♀ 40 millim.

1014. Aclytia terra. (Plate XV. fig. 17.)

Aclytia terra, Schaus, J. N. Y. Ent. Soc. iv. p. 133 (1896).

♂. Fuscous black; vertex of head with metallic blue spot; coxæ orange; abdomen with dorsal series of metallic blue points on proximal segments; lateral series of blue bands, the ventral surface with orange stripes not reaching extremity. Hind wing with hyaline streaks below cell and vein 1, and in and beyond end of cell.

♀ with some blue scales on tegulæ; coxæ black; abdomen with the blue dorsal points extending to extremity, and with no orange on ventral surface.

Hab. Brazil, São Paulo (*Jones*), 1 ♂ 1 ♀. *Exp.*, ♂ 38, ♀ 42 millim. Type + in Coll. Schaus.

*1015. Aclytia bractea.

Sciopsyche bractea, Moschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 645, pl. 8. f. 15 (1877); Kirby, Cat. Het. p. 174.

♂. Black-brown; palpi at base, points on sides of frons, back of head and shoulders, throat and coxæ white; abdomen golden green above; the 1st segment, the tufts of hair on basal segments, a series of dorsal spots, and anal tuft black; a ventral white fascia except on terminal segment. Hind wing with slight bluish gloss; a hyaline streak in and below cell and between bases of veins 2 and 5.

Hab. SURINAM, 1 ♂ type † in Coll. Staudinger. *Exp.* 36 millim.

1016. Aclytia signatura. (Plate XV. fig. 16.)

Percote signatura, Wlk. ii. 493 (1854); Kirby, Cat. Het. p. 202.

♀. Dull brown; palpi at base orange; back of head and tegulæ with orange spots; coxæ and abdomen orange, hind wing semi-hyaline, the veins and terminal area suffused with fuscous.

Hab. "W. INDIES," 1 ♀ type. *Exp.* 34 millim.

Genus PROCALYPTA.

	Type.
Procalypta Butl. Journ. Linn. Soc., Zool. xii. p. 411 (1876) ...	*subcyanea*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; thorax and base of abdomen clothed with woolly hair; tibiæ with the spurs moderate. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell or 10 shortly stalked with 7, 8, 9. Hind wing with the cell three fourths of wing; vein 2 from two-thirds of cell; 3, 4 from angle; 5 from above angle; 6, 7 from upper angle; the costa angled at middle.

1017. Procalypta subcyanea.

Euchromia subcyanea, Wlk. i. 230 (1854); Butl. Ill. Het. i. p. 40, pl. 8, f. 11; Kirby, Cat. Het. p. 157.

Black; neck at sides, shoulders, patagia, metathorax, fore coxæ, and mid and hind femora with white spots; abdomen shot with brilliant blue, the last two segments above and last four below crimson; sublateral white spots on 2nd and 3rd segments. Fore wing with quadrate hyaline spots below middle and in end of cell; two spots beyond the cell above and below vein 6. Hind wing shot with blue, and with brilliant metallic blue on costa and inner margin; hyaline spots below middle and in and beyond end of cell. Underside of fore wing shot with brilliant metallic blue on basal

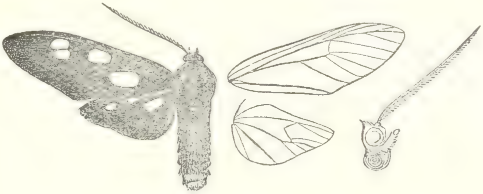

Fig. 246.—*Procalypta subcyanea*, ♂. $\frac{1}{1}$.

and inner areas; hind wing shot with blue except a patch beyond end of cell.

Hab. Mexico, type, Jalapa, Cuesta de Misantla (*Trujillo*), Godman-Salvin Coll. *Exp.* 54 millim.

Subsp. 1. *victorina*, Druce, Biol. Centr.-Am., Het. i. p. 67, pl. 8. f. 16 (1884); Preiss, Abbild. Nachtschmett. p. 7, pl. 9. f. 6; Kirby, Cat. Het. p. 157.

Hind wing without the hyaline spots in and beyond the cell, and in type the spot in cell also absent.

Hab. Costa Rica (*van Patten*); Panama (*Champion*), type, Godman-Salvin-Coll.

Genus URAGA.

Type.

Uraga, Wlk. ii. 464 (1854) .... *hæmorrhoa.*

Proboscis fully developed; palpi with the 2nd joint oblique, the 3rd long and porrect; antennæ of female with short branches dilated at extremity and ending in a bristle; tibiæ with the spurs short. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9 on a long stalk, 7 given off after 9, 10 from angle; 11 from cell. Hind wing with the cell very long; 2 from long before angle; 3 from near angle; 4, 5 from angle; 6, 7 from upper angle.

1018. Uraga hæmorrhoa.

Uraga hæmorrhoa, Wlk. ii. 465 (1854); Kirby, Cat. Het. p. 163.

♀. Head crimson; palpi striped with black; antennæ black; black bands above and below frons; thorax dark brown; abdomen metallic blue, the last three segments crimson below. Fore wing black-brown, with some metallic blue at base of inner margin; an oblique white band with yellow edges from below costa beyond middle to tornus. Hind wing greyish suffused with metallic blue; a broad hyaline streak below median nervure.

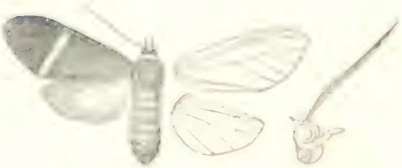

Fig. 247.—*Uraga hæmorrhoa*, ♀. 1/1.

Hab. Jamaica (*Gosse*), 2 ♀, type. *Exp.* 42 millim.

Genus GANGAMELA.

Type.

Gangamela, Wlk. xxxi. 140 (1864) .... *saturata.*
Uxela, Wlk. xxxv. 1982 (1866).. *saturata.*

Proboscis fully developed; palpi upturned, reaching just above vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs short; abdomen dorsally clothed with rough hair at base and with lateral tubercles on 1st segment. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle of cell; 3 from near angle; 5 from just above angle; 6, 7 from upper angle.

A. Fore wing with basal orange patch and oblique postmedial band .... *saturata.*
B. Fore wing with submedian crimson fascia .... *ira.*

1019. Gangamela saturata.

Gangamela saturata, Wlk. xxxi. 140 (1864); Kirby, Cat. Het. p. 408.

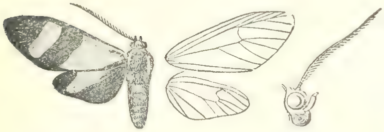

Fig. 248.—*Gangamela saturata*, ♂. 1/1.

♂. Black; palpi in front, frons, basal joint of antennæ, patches on tegulæ and shoulders, and streaks on patagia and legs white; abdomen with slight lateral streaks and prominent sublateral white stripes. Fore wing with large oblique triangular golden yellow patch just below costa from base to middle, with its apex just above inner margin beyond middle, and with a short black streak on base of median nervure; an oblique yellow band beyond the cell from below costa to near middle of termen. Hind wing with oblique wedge-shaped patch extending on costa from base to beyond middle, with its apex near middle of termen.

Hab. Brazil, 1 ♂ type. *Exp.* 36 millim.

*1020. Gangamela ira.

Charidea ira, Druce, A. M. N. H. (6) xviii. p. 34 (1896); id. Biol.-Centr. Am., Het. ii. p. 353, pl. 72. f. 15.

♂. Black; head and thorax with patches of brilliant blue; fore femora with white streaks; abdomen with brilliant blue bands. Fore wing with blue patch at base of inner margin; a crimson fascia occupying the submedian interspace from near base to termen, where it is bent downwards to tornus. Hind wing with apical crimson patch. Underside of fore wing with the crimson extending above vein 2; hind wing with slight subterminal crimson irroration above and below vein 2.

Hab. Panama, Chiriqui, type † ♂ in Coll. Staudinger. *Exp.* 34 millim.

Genus EUAGRA.

	Type
Euagra, Wlk. ii. 323 (1854)	*cœlestina.*
Nepe, Wlk. ii. 336 (1854)	*fenestra.*
Callagra, Butl. Cist. Ent. ii. p. 111 (1876)	*azurea.*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; abdomen with lateral tubercles on first segment. Fore wing with veins 4, 5 from angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from angle; 4, 5 strongly stalked; 6, 7 from upper angle.

Sect. I. (*Euagra*). Fore wing with veins 4, 5 approximated for some distance, 3 from angle of cell.

1021. Euagra cœlestina.

Bombyx cœlestina, Stoll, Pap. Exot. iv. pl. 345. G (1782); Kirby, Cat. Het. p. 179.
Dioptis interclusa, Wlk. ii. 328 (1854).

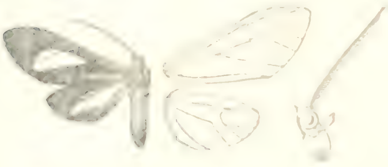

Fig. 249. *Euagra cœlestina*, ♂. 1/1.

♂. Black shot with blue; 1st joint of palpi, back of head, and neck crimson; frons and coxæ white; abdomen brilliant blue, with dorsal whitish line, the ventral surface bluish white. Fore wing with brilliant blue fascia above and below vein 1 extending to middle; hyaline patches above veins 2 and 3, the former extending to near termen. Hind wing shot with brilliant blue; a hyaline fascia below the cell and vein 3 extending to near termen.

Hab. Amazons, Para (*Bates*), 2 ♂, type *interclusa*. *Exp.* 36 millim.

Sect. II. (*Callagra*). Fore wing with veins 4, 5 not approximated, 3 from more or less before angle of cell, the cell more or less narrowed by approximation of median to subcostal nervure.

A. Fore wing with a single hyaline patch above vein 2.
  a. Fore wing with vein 2 from before middle of cell.
    a¹. Head crimson .... *cerymica.*
    b¹. Head black and blue.
      a². Head, thorax, and abdomen without white markings above .... *angelica.*
      b². Head, thorax, and abdomen with white markings above .... [illegible]
  b. Fore wing with vein 2 from after middle of cell.
    a¹. Base of palpi, neck, and vertex of head crimson......... *hæmanthus.*
    b¹. Base of palpi and neck orange, vertex of head black ... *azurea.*
    c¹. Head black and blue .... *cærulea.*
B. Fore wing with hyaline streaks in and below cell.
  a. Vertex of head crimson; fore wing with oblique hyaline bar beyond the cell between veins 7 and 4.................. *splendida.*
  b. Vertex of head mostly black; fore wing without oblique bar beyond cell, but patches above veins 3 and 4.
    a¹. Hind wing without hyaline streak in cell; coxæ and ventral surface of abdomen white .... *intercisa.*
    b¹. Hind wing with hyaline streak in cell; coxæ and ventral surface of abdomen dark........................... *fenestra.*
C. Fore wing with oblique hyaline band beyond the cell ...... *latera.*

*1022. Euagra cerymica. (Plate XV. fig. 7.)

Euagra cerymica, Druce, P. Z. S. 1893, p. 284.

♀. Head crimson; antennæ and 3rd joint of palpi black; thorax and abdomen black, suffused above with blue; wings black shot with blue. Fore wing with brilliant blue subcostal fascia to beyond middle and broader fascia above vein 1; a large triangular hyaline patch above vein 2 extending to near termen. Hind wing with hyaline fascia below the cell and between veins 2 and 3 to near termen.

Hab. Panama (*Bouchard*). *Exp.* 38 millim. Type † in Coll. Druce.

1023. **Euagra angelica.** (Plate XV. fig. 26.)

Euagra angelica, Butl. Cist. Ent. p. 110 (1876); Kirby, Cat. Het. p. 179.

♀. Black shot with blue; head and thorax with patches of brilliant blue; frons at sides and coxæ white; ocelli crimson; abdomen brilliant blue, the ventral surface white. Fore wing with brilliant blue fasciæ on costal and inner areas from base; vein 2 given off before middle of cell and with a very large triangular hyaline patch above it extending to near termen. Hind wing with hyaline fascia below the cell and vein 3, extending to near termen.

Hab. Colombia, Cundinamarca, 1 ♀ type. *Exp.* 31 millim.

1024. **Euagra chica**, n. sp. (Plate XVI. fig. 1.)

Black shot with blue; palpi in front, frons, patches on tegulæ, streaks on patagia, thorax, and legs white; abdomen with segmental white lines and dorsal and ventral white stripes. Fore wing with some white near base of inner margin; cell very narrow; vein 2 from near base, with an elongate wedge-shaped hyaline patch above it from near base to near termen. Hind wing with hyaline fascia from base below the cell and above vein 2 to near termen; cilia white at tornus. Underside with white fasciæ on inner margin of fore wing and basal half of costa of hind wing.

Hab. Bolivia, Tanampa (*Garlepp*), 1 ♂ type, ♀ in Coll. Staudinger. *Exp.* 30 millim.

1025. **Euagra hæmanthus.**

Dioptis hæmanthus, Wlk. ii. 324 (1854); Druce, Biol. Centr.-Am., Het. i. p. 81; Kirby, Cat. Het. p. 179.

Black shot with blue; 1st joint of palpi, top of frons, and head and neck crimson; coxæ white; metathorax and abdomen brilliant blue, the latter with slight white dorsal line, segmental rings and the ventral surface white. Fore wing with brilliant blue fasciæ below base of costa and above vein 1; a large somewhat wedge-shaped hyaline patch above vein 2 extending to near termen. Hind wing with hyaline fascia below the cell and vein 3 extending to near termen.

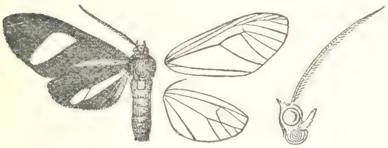

Fig. 250.—*Euagra hæmanthus*, ♂. 1/1.

Hab. Mexico, type; Guatemala; Panama (*Champion*), Godman-Salvin Coll. *Exp.* 36 millim.

1026. Euagra azurea. (Plate XVI. fig. 2.)

Dioptis azurea, Wlk. ii. 325 (1854); Kirby, Cat. Het. p. 179.

Black shot with blue; 1st joint of palpi, head behind eyes, and neck orange; palpi in front and frons with some white; coxæ white; abdomen with slight dorsal white line, and the ventral surface white. Fore wing with some brilliant blue on basal inner area and a slight white streak on vein 1; a wedge-shaped hyaline patch above vein 2; cilia white at apex. Hind wing shot with brilliant blue; a hyaline fascia below the cell extending to near termen below vein 3; cilia white towards tornus.

Hab. BRAZIL, 3 ♂, 1 ♀ type. *Exp.* 32 millim.

*1027. Euagra cærulea.

Euagra cærula, Dognin, Le Nat. xiii. p. 125 (1891); id. Lép. Loja, pl. 8. f. 5; Kirby, Cat. Het. p. 904.

♂. Black; frons, thorax, and abdomen suffused with brilliant blue; coxæ whitish. Fore wing black-brown, with small semihyaline triangular patch above base of vein 2. Hind wing shot with metallic blue; a hyaline fascia below the cell and above base of vein 2.

Hab. ECUADOR, Loja. *Exp.* 32 millim. Type † in Coll. Dognin.

1028. Euagra splendida. (Plate XVI. fig. 3.)

Callagra splendida, Butl. Cist. Ent. ii. p. 112 (1876); Kirby, Cat. Het. p. 179.

♂. Black shot with blue; palpi with the 1st joint and base of 2nd, head behind eyes, and vertex and neck crimson; a point behind tegulæ and some scales on patagia white; coxæ white; abdomen with dorsal white line, and the ventral surface white. Fore wing with hyaline streaks in and below cell and triangular patch above vein 2; a white streak above base of vein 1; an oblique hyaline bar beyond the cell between veins 6 and 4. Hind wing shot with brilliant blue; hyaline streaks in lower end of cell, below the cell, and between veins 3 and 4, with a small point above vein 4; underside with white streak on base of costa.

Hab. BRAZIL, 1 ♂ type. *Exp.* 38 millim.

1029. Euagra intercisa. (Plate XVI. fig. 8.)

Dioptis auxo, Wlk. ii. 327 (nec Hubn.).
Euagra intercisa, Butl. Cist. Ent. ii. p. 111 (1876); Kirby, Cat. Het. p. 179.

♂. Black shot with blue; palpi in front, frons, and coxæ white; 1st joint of palpi, head behind eyes, and some scales on vertex crimson; abdomen with slight white dorsal line, and the ventral surface white. Fore wing with slight white streak below base of costa and some brilliant blue at base of inner area; hyaline streaks in and below cell and above veins 2, 3, 4, the last a small patch; cilia tipped with white at apex. Hind wing shot with brilliant blue; a hyaline fascia below the cell to near termen below vein 4.

Fore wing of type with vein 10 on one side arising from 11.

Hab. Venezuela, 2 ♂ type. *Exp.* 36 millim.

1030. Euagra fenestra. (Plate XVI. fig. 7.)

Dioptis fenestra, Wlk. ii. 337 (1854); Kirby, Cat. Het. p. 179.

♀. Black, shot with blue; frons with white points; 1st joint of palpi, head behind eyes, and throat crimson. Fore wing with the inner area shot with brilliant blue; hyaline fasciæ in and below cell and above veins 2, 3, 4. Hind wing shot with brilliant blue on costal and inner areas; hyaline fasciæ in lower part of cell, below the cell extending to near termen below vein 4, and on inner area.

Hab. Brazil, 1 ♀ type. *Exp.* 40 millim.

*1031. Euagra latera.

Erchia latera, Druce, P. Z. S. 1890, p. 496, pl. 42. f. 7; Kirby, Cat. Het. p. 163.

♂. Head, thorax, and abdomen black, with patches of brilliant blue; palpi in front and coxæ white; abdomen shot with blue, and with blue segmental lines, the ventral surface with broad white stripe not reaching extremity; wings black, shot with blue. Fore wing with brilliant blue fasciæ on costa and above vein 1 to beyond middle; a broad oblique hyaline band in end and beyond cell from subcostals to vein 2. Underside of fore wing with the basal area blue, produced as fasciæ on costa to beyond middle, and on inner margin to near tornus; hind wing with subcostal fascia to beyond middle.

Hab. Ecuador (*Buckley*), type † in Coll. Druce; Brazil, São Paulo. *Exp.* 44 millim.

Genus MYDROMERA.

Type.

Mydromera, Butl. Cist. Ent. ii. p. 112 (1876) .... *notochloris.*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity, shorter in female; tibiæ with the spurs moderate; abdomen with lateral tubercles on 1st segment. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from near angle; 4, 5 shortly stalked; 6, 7 from upper angle.

1032. Mydromera notcchloris.

Fragra notochloris, Boisd. Lép. Guat. p. 87 (1870); Kirby, Cat. Het. p. 121.
Euagra isthmia, Feld. Reis. Nov. pl. 105. f. 24 (1874); Druce, Biol. Centr.-Am., Het. i. p. 81; Kirby, Cat. Het. p. 178.
Agyrta notochlora, Staud. Verh. zool.-bot. Ges. Wien, xxv. p. 121 (1875).

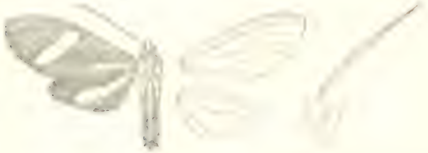

Fig. 251.—*Mydromera notochloris*, ♂. ½.

Black; palpi in front and coxæ white; palpi, frons, vertex of head, a band behind eyes, tegulæ, patagia, pectus, and legs with patches of metallic blue; abdomen with dorsal and lateral blue stripes, the ventral surface white. Fore wing with slight blue streak below base of costa and a fascia above vein 1 extending to middle; an oblique hyaline band from beyond upper angle of cell to near termen at vein 2; cilia white at apex. Hind wing with hyaline fascia from base below cell to near termen below vein 4. Underside with blue streaks below median nervure of fore wing and on costal area of hind wing.

Hab. Guatemala (*Champion*); Honduras (*Blancaneaux*); Nicaragua (*Belt*), Godman-Salvin Coll.; Colombia, Bogota (*Vergara*), Cundinamarca. *Exp.* 40 millim.

Genus MICRAGRA, nov.

Type, *M. sanguiceps*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of female bipectinate, with moderate branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate; abdomen with lateral tubercles at base. Fore wing rather short and broad; vein 3 from close to angle of cell; 4,5 stalked; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4, 5 from angle; 6, 7 from upper angle.

1033. Micragra sanguiceps, n. sp.

Fig. 252.—*Micragra sanguiceps*, ♀. ½.

♀. Black-brown; 1st joint of palpi, head on vertex and behind eyes, and sides of neck crimson; frons blue, edged with white; tegulæ, patagia, metathorax, pectus, and legs with metallic blue-green patches; abdomen suffused with metallic blue-green above. Fore wing with metallic green streak on base of vein 1; a yellowish-white patch between veins 2 and 3, extending to just below vein 2; cilia white at apex.

Hab. Brazil, Lake Iguarasu, 1 ♀ type. *Exp.* 28 millim.

Genus MEVANIA.

Type.
Mevania, Wlk. ii. 442 (1854) .... *quadricolor.*

Proboscis fully developed; palpi upturned to vertex of head; antennæ of male bipectinate, with moderate branches, of female with short branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate. Fore wing rather short and broad; the cell broad at extremity, and vein 3 from below angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9, 10 stalked; 7, 8, 9 from a point towards apex. Hind wing with the cell very long; vein 2 from long before angle; 3 from near angle; 4, 5 from angle; 6, 7 from upper angle.

1034. Mevania quadricolor.

Mevania quadricolor, Wlk. ii. 443 (1854); Kirby, Cat. Het. p. 163.

Black-brown; palpi at base and neck orange; basal joint of antennæ white in front in male; head and thorax with patches of metallic blue; legs striped with white; abdomen with a metallic blue band on each segment, whitish below. Fore wing with some metallic green at base; a yellow medial band narrowing towards and not quite reaching costa or inner margin. Hind wing with some blue at base of median nervure; an oblique yellow patch from middle of costa to beyond lower angle of cell.

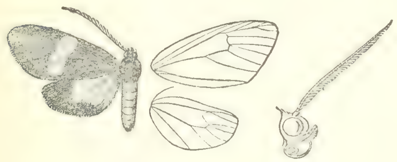

Fig. 253.—*Mevania quadricolor,* ♂. 1/1.

Hab. Ecuador, 1 ♂; Venezuela, 1 ♀ type. *Exp.* 36 millim.

Genus MICROGITON.

Type.
Microgiton, Feld. Reis. Nov. pl. 103 (1875), non descr. .... *submacula.*

Proboscis fully developed; palpi obliquely porrect, extending well beyond frons; antennæ of female biserrate, with moderate branches; tibiæ with the spurs minute. Fore wing with veins 3, 4, 5 separate at origin; 6 from well below angle of cell; 7, 8, 9, 10 strongly stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4 strongly stalked; 5 from well above angle; 6, 7 from upper angle.

1035. Microgiton submacula.

Virbia submacula, Wlk. ii. 472 (1854).
Microgiton selene, Feld. Reis. Nov. pl. 103. f. 17 (1875).

♀. Black-brown; coxæ and ventral surface of abdomen whitish.

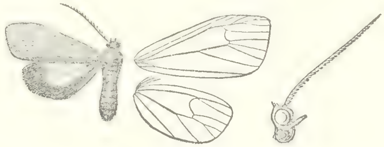

Fig. 254.—*Microgiton submacula,* ♀. 1/1.

Fore wing with the veins streaked with yellowish. Hind wing with pale yellow patch on basal two-thirds, extending from costa below and beyond the cell and leaving the inner and terminal areas broadly black. Underside of fore wing with oblique pale yellow band across end of cell from subcostal nervure to vein 2.

Hab. Venezuela, 1 ♀ type. *Exp.* 30 millim.

Genus **HYPERPHARA**, nov.

Type, *H. junctura.*

Proboscis fully developed; palpi porrect, extending about the length of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs short. Fore wing with veins 3, 4, 5 separate at origin; 6 from upper angle; 7, 8, 9, 10 strongly stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4 strongly stalked; 5 from below angle of discocellulars; 6, 7 from upper angle.

1036. Hyperphara junctura.

Melanchroia junctura, Wlk. xxxi. 211 (1864).
Microgiton cingulosus, Feld. Reis. Nov. pl. ciii. f. 18 (1875).

♂. Black-brown; head and thorax with some pale yellow hairs; frons with white patches; palpi and legs streaked with white; abdomen with slight quadrate subdorsal pale yellow patches on each segment, the ventral surface banded with white. Fore wing with oblique yellow bar across end of cell and wedge-shaped spot above base of vein 2. Hind wing with yellow patch on middle of costa; a diffused streak in cell; a slighter streak on inner area joining a short band on termen towards tornus. Underside of fore wing with some white at base; hind wing yellowish white, with blackish apical area conjoined to a terminal patch.

Fig. 255.—*Hyperphara junctura*, ♂. 1/1.

Hab. Colombia, Bogota, 1 ♂ type. *Exp.* 34 millim.

Genus **PARASTATIA**, nov.

Type, *P. parnassia.*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs moderate; abdomen with lateral tubercles at base, the terminal segment with lateral and anal tufts. Fore wing with vein 3 from well before angle of cell; 4, 5 separate at origin; 6 from below upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from long before angle of cell; 3 from well before angle; 5 from well above angle; 7 from long before upper angle.

* 1037. Parastatia parnassia.

Marissa parnassia, Moschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 636, pl. 8. f. 5 (1877); Kirby, Cat. Het. p. 147.

♂. Black; palpi in front, frons at sides, basal joint of antennæ in front, gulæ, spots on shoulders, patches on pectus, coxæ, and stripes on mid and hind femora white; thorax and abdomen suffused with blue, the latter with dorsal, lateral, and sublateral series of white spots, the anal tufts crimson. Fore wing with whitish-blue streak below base of median nervure; a large medial hyaline patch formed by wedge-shaped spots in cell, above base of vein 2, and below cell and vein 2; a postmedial patch with curved edges between veins 3 and 7. Hind wing hyaline, with the veins and margins black; a black patch at base of cell; the terminal band broad, slightly shot with blue, expanding towards apex, irregularly dentate towards tornus, and emitting a streak along vein 1. Underside with some white on median nervure of fore wing near base and on base of costa of hind wing.

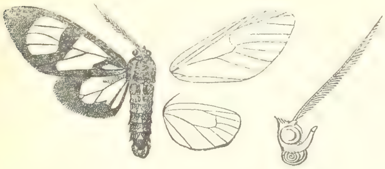

Fig. 256.—*Parastatia parnassia*, ♂. 1/1.

Hab. SURINAM, 1 ♂ type† in Coll. Staudinger. *Exp.* 40 millim.

Genus AGYRTA.

Type.
Agyrta, Hübn. Verz. p. 177 (1827) .... *auxo*.
Corydalla, Wlk. vii. 1650 (1857) .... *cryptoleuca*.

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate. Fore wing broad; vein 3 from well before angle of cell; 4, 5 separate at origin; 6 from below upper angle; 7, 8, 9, 10 stalked; 7 from long before 9; 11 from cell. Hind wing with the cell long; vein 3 from near angle; 4, 5 separate at origin or from a point; 7 from just before upper angle.

A. Fore wing with hyaline patch above base of vein 2.
  a. Fore wing with oblique subapical hyaline band.
    a^1. Hind wing with hyaline streak on inner area.
      a^2. Fore wing with the hyaline fascia in submedian interspace arising near base .... *dux*.
      b^2. Fore wing with the hyaline fascia in submedian interspace arising near origin of vein 2 .... *micilia*.
    b^1. Hind wing without hyaline streak on inner area.
      a^2. Vertex of head crimson .... *chena*.
      b^2. Neck only crimson .... *flavitincta*.
    c^1. Fore wing with no hyaline fascia in submedian interspace; vertex of head crimson .... *auxo*.
  b. Fore wing without subapical band .... *monoplaga*.
B. Fore wing without hyaline patch above base of vein 2.
  a. Fore wing without diffused white scales.
    a^1. Fore wing with the white patch beyond cell entire ...... *pandemia*.
    b^1. Fore wing with the white patch beyond cell broken up into two spots .... *porphyria*.
  b. Fore wing with diffused white scales.. .... *albisparsa*.

1038. Agyrta dux.

Dioptis dux, Wlk. ii. 327 (1854); Kirby, Cat. Het. p. 121.
Agyrta æstiva, Butl. Cist. Ent. ii. p. 113 (1876); Kirby, Cat. Het. p. 121.

Isostola superba, Druce, Biol. Centr.-Am., Het. i. p. 115, pl. 12. f. 5 (1884); Kirby, Cat. Het. p. 191.
Agyrta phylla, Druce, P. Z. S. 1893, p. 282.

Black, shot with brilliant blue; palpi with the 1st joint crimson; neck slightly tinged with crimson; frons edged with white; some white behind the eyes; thorax streaked with white; coxæ white; abdomen with dorsal and lateral white streaks, and the ventral surface white. Fore wing with hyaline streak in cell above middle of median nervure; a fascia, with short blue fascia below it, below the cell and vein 2 to near termen, and a triangular patch above vein 2; an oblique postmedial band from vein 7 to above 3 near termen. Hind wing with hyaline fascia below and in lower part of cell and between veins 2 and 5 to near termen, varying in width; a hyaline streak on inner area; cilia white towards tornus.

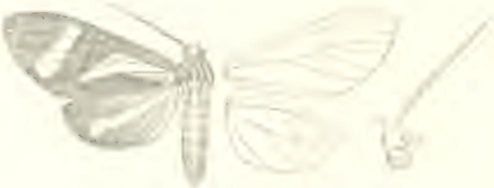

Fig. 257. *Agyrta dux*, ♂. ½.

Ab. 1. *superba*. Hind wing without the hyaline streak in cell; the fascia below the cell narrow.

Hab. St. Lucia, type ♀ *phylla* in Coll. Druce; Honduras, 1 ♂, type *astiva*; Guatemala (*Champion*), 2 ♂, type *superba*: Godman-Salvin Coll.; Venezuela, 2 ♀ type. *Exp.*, ♂ 48, ♀ 56 millim.

1039. Agyrta micilia.

Bombyx micilia, Cram. Pap. Exot. iii. pl. 228. G (1780); Kirby, Cat. Het. p. 121.

Black, shot with brilliant blue; proboscis, 1st joint of palpi, and neck crimson; frons edged with white; thorax slightly streaked with white; coxæ white; abdomen with slight dorsal and lateral white streaks, and the ventral surface white. Fore wing with brilliant blue patch in and below base of cell, with slight white streak above vein 1; a hyaline streak in lower end of cell; a wedge-shaped spot above vein 2 and streak below it; an oblique hyaline postmedial band from vein 7 to just below 4 near termen. Hind wing with hyaline fascia in and below the cell and beyond it between veins 2 and 5 to near termen; a streak on basal part of inner area.

Hab. Brazil, Para (*Austen*). *Exp.* 42 millim.

1040. Agyrta chena. (Plate XVI. fig. 19.)

Agyrta chena, Druce, P. Z. S. 1893, p. 281.

Head black, the base of palpi, vertex, and cheeks crimson; palpi in front, frons, and basal joint of antennæ white; thorax and abdomen blue-black; stripes on thorax, patagia and legs, and the coxæ white; abdomen with dorsal white stripe and the ventral surface white. Fore wing blue-black, the inner area suffused with brilliant blue; a diffused white stripe on vein 1; an elongate hyaline spot in lower end of cell; a streak below vein 2 and a wedge-shaped patch above vein 2; an oblique subterminal white spot between veins 6 and 4. Hind wing suffused with brilliant blue; a hyaline fascia below the cell from base to near termen below vein 4.

Ab. 1. Fore wing with the hyaline streak in submedian interspace arising near base.—Bolivia.

Hab. Upper Amazons (*Maxwell Stuart*), type † in Coll. Druce; Bolivia, Rio Suapi (*Garlepp*), 1 ♂. *Exp.* 32 millim.

1041. **Agyrta flavitincta**, n. sp. (Plate XVI. fig. 21.)

♂. Black suffused with blue; 1st joint of palpi and neck crimson; palpi, sides of frons, and vertex of head marked with white; thorax and legs with white stripes; abdomen with dorsal white stripe, the ventral surface white. Fore wing with semihyaline fascia below cell and vein 2; a triangular patch above vein 2; a short streak in cell above vein 2 and an oblique patch beyond cell above and below vein 5, all tinged with yellow. Hind wing shot with brilliant blue; a yellowish-white fascia in and below cell, extending to just beyond lower angle; underside with the costa and inner area streaked with white.

Hab. Bolivia, San Antonio (*Garlepp*), 1 ♂ type. *Exp.* 42 millim.

1042. **Agyrta auxo.**

Sphinx auxo, Linn. Syst. Nat. i. (2) p. 805 (1767); Hübn. Samml. ex. Schmett. i.; Kirby, Cat. Het. p. 121.

♂. Black, shot with brilliant blue; 1st joint of palpi and vertex of head crimson; frons white; thorax and legs streaked with white; abdomen with dorsal and lateral white lines and the ventral surface white. Fore wing with brilliant blue below base of cell; a white fascia on vein 1; an oblique wedge-shaped hyaline patch from middle of cell above vein 2 to near termen; an oblique elliptical white spot between veins 7 and 4. Hind wing with hyaline fascia below the cell and vein 4 to near termen; some white on inner margin.

Hab. Venezuela; Amazons, Para (*Bates*), 1 ♂. *Exp.* 36 millim.

*1043. **Agyrta monoplaga.** (Plate XVI. fig. 25.)

Agyrta monoplaga, Druce, A. M. N. H. (7) i. p. 208 (1898).

♂. Head, thorax, and abdomen black, suffused with brilliant blue; 1st joint of palpi, throat, cheeks, and vertex of head crimson;

frons, coxæ, and stripes on legs white. Fore wing blue-black, the inner area broadly brilliant blue; a large hyaline patch formed by triangular patches in end of cell and above vein 2, and an oblique streak below vein 2 extending nearly to termen. Hind wing brilliant blue.

Hab. ECUADOR, Balsapamba. *Exp.* 36 millim. Type † in Coll. Druce.

*1044. **Agyrta pandemia.** (Plate XVI. fig 26.)

Agyrta pandemia, Druce, P. Z. S. 1893, p. 282.

♂. Head, thorax, and abdomen black, suffused with blue; palpi in front, sides of frons, and stripes on legs white; abdomen with the ventral surface white. Fore wing black, with brilliant metallic blue streaks on median nervure and inner margin to beyond middle; an oblique semihyaline white band from upper angle of cell to vein 2. Hind wing suffused with brilliant blue; a hyaline streak in lower part of cell, and a fascia below the cell from base to beyond lower angle; veins 4, 5 from a point.

Hab. AMAZONS, Para, type † in Coll. Druce. *Exp.* 32 millim.

*1045. **Agyrta porphyria.**

Bombyx porphyria, Stoll, Pap. Exot. iv. pl. 397. E (1782). Kirby, Cat. Het. p. 163.

Corydula cryptoleuca, Wlk. vii. 1650 (1856). Kirby, Cat. Het. p. 904.

Black, suffused with blue; palpi in front and coxæ white; head and thorax with patches of metallic blue; abdomen with dorsal and lateral metallic blue lines, the ventral surface white. Fore wing with metallic blue fascia in submedian interspace extending to near termen, interrupted at middle or reduced to basal portion; a semitriangular hyaline white patch beyond discocellulars, and two patches between veins 3 and 5. Hind wing usually with fine metallic blue streaks on median nervure and bases of veins 2, 3, 4, the latter sometimes with traces of white patches between them, which are more prominent on underside; cilia of both wings white at apex.

Hab. AMAZONS, Para. *Exp.* 48 millim. Type † *cryptoleuca* in Mus. Oxon.

Subsp. 1. Fore wing with blue streak below cell extending to near tornus; hind wing with slight hyaline streak below cell.—Reyes (*Stuart*), Coll. Rothschild.

1046. **Argyrta albisparsa**, n. sp. (Plate XVI. fig. 20.)

♂. Head and thorax black, irrorated with white; neck orange; abdomen suffused with brilliant blue, slight dorsal and broad ventral white stripes. Fore wing black with diffused white scales, some of which form very obscure antemedial, medial, and subterminal white lines, the first strongly excurved on median nervure, the 2nd strongly incurved below cell, and the last dentate; a semihyaline white patch beyond the cell between veins 3 and 7, irrorated with fuscous. Hind wing suffused with brilliant blue; a hyaline fascia in, below, and beyond lower angle of cell.

Hab. Brazil, Sta. Catharina, 1 ♂ type. *Exp.* 36 millim.

Genus **PHARA.**

	Type.
Phara, Wlk. ii. 321 (1854)	*trivittata.*
Olina, Wlk. Char. Lep. Het p. 5 (1869)	*nyctemeroides.*

Proboscis fully developed; palpi porrect, downcurved, extending about the length of head; antennæ bipectinate, with moderate branches dilated at extremity and ending in a bristle; tibiæ with the spurs short. Fore wing long and moderately broad; vein 3 from close to angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell, which is very long; 6, 7 from upper angle,

Sect. I. Hind wing of male with the tornus truncate and fringed with long hair.

*1047. Phara flavicosta.

Ecdemus flavicosta, Herr.-Schäff. Aussereur. Schmett. f. 421 (1855); Kirby, Cat. Het. p. 139.

♂. Head, thorax, and abdomen black; shoulders with yellow fasciæ; the subterminal segment of abdomen with yellow band incomplete dorsally. Fore wing fuscous brown, with the veins black; a yellow costal fascia extending to three-fourths from base; cilia whitish at tips. Hind wing with the basal two-thirds hyaline with black veins, the outer third black; the long hair at tornus brown.

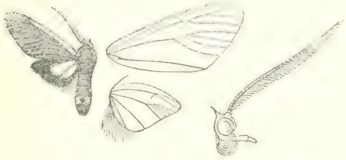

Fig. 258.—*Phara flavicosta*, ♂. $\frac{1}{1}$.

Hab. Brazil, Rio Grande do Sul. *Exp.* 24 millim. In Coll. Schaus.

Sect. II. Hind wing of male with the tornus normal.

A. Hind wing with wedge-shaped white streak below middle of costa on underside	*trivittata.*
B. Hind wing with white streak on costa from base to middle on underside	*nyctemeroides.*

1048. Phara trivittata.

Dioptis trivittata, Wlk. ii. 322 (1854); Kirby, Cat. Het. p. 180.

♂. Black-brown; palpi at base and back of head crimson; metathorax with dorsal white stripe; legs striped with white; abdomen shot with blue, a white dorsal stripe; white lateral stripes from segment 4 to extremity; the last three segments white below. Fore wing with narrow white stripe on costa from near base to middle, and stripe on inner margin from base to beyond middle; a white spot in end of cell, and wedge-shaped patch between veins 2 and 3; cilia white at tips towards apex. Hind wing shot with blue; semihyaline white streaks in and below cell and between veins 2 and 3 to near termen; cilia white at tips towards apex. Underside with wedge-shaped white streak below medial part of costa; inner area white.

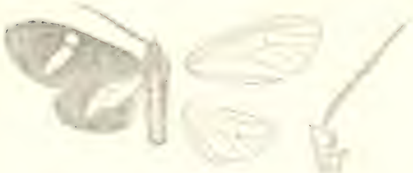
Fig. 259.—*Phara trivittata*, ♂. $\frac{1}{1}$.

Hab. ignotus. 1 ♂ type. *Exp.* 40 millim.

1049. Phara nyctemeroides. (Plate XVI. fig. 4.)

Olisa nyctemeroides, Wlk. Char. Lep. Het. p. 6 (1869); Kirby, Cat. Het. p. 180.

♂. Dark brown; palpi at base, vertex and back of head crimson; a white dorsal stripe on metathorax; legs striped with white; (abdomen wanting). Fore wing with traces of white streaks on costa and on inner margin to beyond middle; a white spot in end of cell and wedge-shaped patch between veins 2 and 3; cilia white towards apex. Hind wing shot with blue; a semihyaline white streak in and below cell and between veins 2 and 3 to near termen; cilia white towards apex. Underside with white streak on costa from base to middle; the inner area white.

Hab. ignotus. 1 ♂ type. *Exp.* 38 millim.

Genus ZATREPHES.

Type
Zatrephes, Hübn. Verz. p. 171 (1827) .... *nitida.*

Proboscis minute; palpi upturned, hardly reaching vertex of head, the 3rd joint minute; antennæ bipectinate with moderate branches; tibiæ with the spurs moderate. Fore wing with veins 3, 4, 5 from angle of cell; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 2 from before angle of cell; 3, 4 absent; 5 from angle; 6, 7 coincident.

A. Fore wing with large irregular hyaline patch beyond the cell. *paradisea.*
B. Fore wing with four hyaline spots on a fuscous patch beyond the cell .... *nitida.*

1050. Zatrephes paradisea.

Zatrephes paradisea, Butl. Ill. Het. i. p. 52, pl. 17. f. 11 (1877); Kirby, Cat. Het. p. 196.

♂. Head and thorax pale golden yellow; palpi and antennæ crimson above; frons rufous; back of head, tegulæ, patagia, and vertex of thorax with crimson lines; fore legs mostly crimson; abdomen yellow, tinged with crimson above, and with whitish dorsal spot at base. Fore wing golden yellow, with a silvery gloss reticulated with crimson lines; a slight brown mark on inner margin near base; a brown line from costa before middle to tornus; a large triangular hyaline patch with brown points on the veins, beyond the brown line, with its base on subcostals and apex just above vein 2; some dentate brown subterminal marks. Hind wing pale crimson, becoming semihyaline white towards costa.

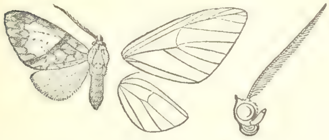

Fig. 260.—*Zatrephes paradisea*, ♂. $\frac{1}{1}$.

Hab. Amazons, R. Jutahi (*Trail*), 1 ♂ type. *Exp.* 30 millim.

*1051. Zatrephes nitida.

Noctua nitida, Stoll, Pap. Exot. iii. pl. 274. F (1780); Kirby, Cat. Het. p. 196.

♀. Head, thorax, and fore wing orange, irrorated with crimson; thorax with fuscous stripes; legs pink; abdomen crimson. Fore wing with slight oblique dark antemedial line not reaching costa; two median lines which cross above vein 1, the inner from below costa, the outer from a large fuscous patch beyond the cell between veins 3 and 7, and emitting a wedge-shaped mark towards tornus; an indistinct dentate subterminal line. Hind wing crimson, the cilia white.

Hab. Surinam. *Exp.* 40 millim. This species is unknown to me.

Genus **ANTAXIA**, nov.

Type, *A. pyrgion*.

Proboscis fully developed; palpi upturned to vertex of head, thickly scaled, and the 3rd joint minute; tibiæ with the spurs moderate; head, thorax, and abdomen clothed with rough hair. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle of cell; 3 and 5 from angle; 4 absent; 6, 7 coincident.

In *creon* there are faint traces of the aborted vein 8 from just before upper angle of cell.

Sect. I. Antennæ of male with long branches; fore wing with vein 6 from upper angle of cell.

A. Fore wing with triangular yellow mark on middle of inner margin .... *pyrgion*.

B. Fore wing with small triangular white spot above middle of inner margin .... *creon*

1052. Antaxia pyrgion.

Amaxia pyrgion, Druce, Biol. Centr.-Am., Het. ii. p. 370, pl. 74. f. 7 (1897).

♂. Yellow; palpi and branches of antennæ brownish; frons, end of patagia, metathorax, and pectus tinged with crimson; abdomen crimson above; thorax and abdomen brownish white below. Fore wing with large triangular brown patch from costa before middle to base of inner margin and tornus, edged with crimson, with a subbasal crimson point on vein 1, and crimson-edged yellow spots below middle of cell and on middle of inner margin; an oblique wedge-shaped crimson-edged brown patch from costa before apex towards a spur from the large brown patch; some black points on costa; some brown points near discocellulars, and a subterminal series of points.

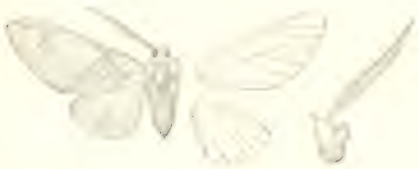
Fig. 261.—*Antaxia pyrgion*, ♂. 1/1.

Hab. Panama, Chiriqui (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 42 millim.

1053. Antaxia creon.

Amaxia creon, Druce, Biol. Centr.-Am., Het. ii. p. 369, pl. 74. f. 6 (1897).

♂. Head, tegulæ, and shoulders yellow; palpi crimson above; antennæ brownish, the basal joint crimson; thorax and abdomen crimson above, whitish below. Fore wing yellow, with brownish patch tinged with flesh-pink and edged with crimson, the veins streaked with crimson from base to near end of cell and thence to tornus, expanding towards costa at its extremity and with its outer edge sinuous; a small dark-edged triangular white spot above middle of inner margin, and a crimson-edged yellow spot below middle of vein 2; a kidney-shaped brownish apical patch with fleshy-grey centre, edged with crimson, the veins crossing it crimson, and with a small crimson-edged yellow spot on it; the yellow area with some fuscous points and a subterminal series. Hind wing pale crimson, whitish towards costa.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 40 millim.

Sect. II. Antennæ of male fasciculate; fore wing with vein 6 shortly stalked with 7, 8, 9, 10.

1054. Antaxia abdominalis.

Syntomis abdominalis, Herr.-Schaff. Aussereur. Schmett. i. f. 275 (1855); Kirby, Cat. Het. p. 198.

Pale yellow; palpi black above; frons and vertex of head with black spots; thorax orange; tegulæ and patagia banded with black; legs with black points; abdomen orange above. Fore wing with the veins slightly streaked with ochreous, the interspaces with fine black streaks interrupted in many places; an obscure subbasal orange line; a large black-edged orange discoidal lunule; a postmedial line highly excurved beyond cell, then bent inwards to near origin of vein 2; a curved orange fulvous subterminal band obsolete towards costa, and expanding above vein 5 and towards tornus; a terminal series of black lunulate marks, the two below apex larger and conjoined to the streaks above veins 5 and 6. Hind wing semihyaline, the inner area clothed with orange hair.

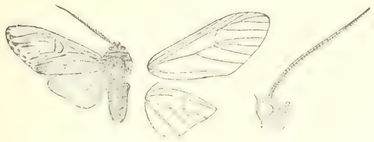

Fig. 262.—*Antaxia abdominalis*, ♂. $\frac{1}{1}$.

Hab. Brazil, São Paulo (*Jones*), 1 ♂ 1 ♀. *Exp.* 34 millim.

Genus **PTYCHOTRICHOS.**

Type.

Ptychotrichos, Schaus, P. Z. S. 1894, p. 227 .... *zeus.*

Proboscis fully developed; palpi upturned and reaching just above vertex of head; antennæ of male bipectinate, with moderate branches dilated at extremity; tibiæ with the spurs moderate; abdomen dorsally clothed with rough hair at base. Fore wing long and narrow, the termen very oblique; vein 3 from before angle of cell; 4, 5 stalked; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with the cell long; vein 2 from well before angle; 3 and 5 from angle; 4 absent; 6, 7 from upper angle; male with the tornus produced to a point, the inner area with a fold containing a tuft of long hair.

1055. **Ptychotrichos zeus.**

Ptychotrichos zeus, Schaus, P. Z. S. 1894, p. 228.

♂. Head and thorax black-brown; neck orange, fore coxæ white, base of femora and extremity of 1st tarsal joint with white points; metathorax with orange point; abdomen black, with large subdorsal blue patches, slight traces of orange between some of the segments, and ventral white bands on 3rd and 4th segments, followed

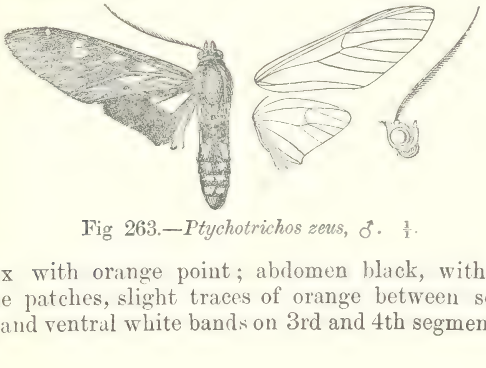

Fig 263.—*Ptychotrichos zeus*, ♂. $\frac{1}{1}$.

by paired white spots on next two segments. Fore wing black-brown; the veins brown; a very highly dentate antemedial line defined by obscure streaks of olive-yellow before and beyond it; a triangular olive-greyish spot in middle, and quadrate spot in end of cell; two conjoined wedge-shaped spots beyond the cell, with a small rounded spot between them nearer termen, their outer edges formed by the obscure brown postmedial line, which becomes crenulate and runs very obliquely to inner margin before middle; a terminal series of diamond-shaped marks edged with brown. Hind wing semihyaline white, the veins black; the terminal area black tinged with blue; the tuft of hair ochreous.

♀. Fore wing with a wedge-shaped subterminal greyish spot below the small rounded spot above vein 3.

Hab. VENEZUELA, Aroa, 1 ♀. *Exp.* 54 millim. Type † in Coll. Schaus.

Genus NEACEREA, nov.

Type, N. *rufiventris.*

Proboscis fully developed; palpi upturned to just above vertex of head, the 3rd joint minute; antennæ of male with moderate branches dilated at extremity and ending in a bristle; tibiæ with the spurs moderate. Fore wing with vein 3 from near angle of cell; 4 from angle; 6 from or from below upper angle; 7, 8, 9, 10 stalked, or 10 from cell; 11 from cell. Hind wing with the cell very long; vein 2 from towards angle; 3 and 5 from angle; 4 absent; 6, 7 from upper angle; 8 sometimes present as an aborted fragment.

SECT. I. Fore wing with vein 10 stalked with 7, 8, 9.

A. Fore wing with veins 3, 4 stalked, 6 from below angle of cell. Hind wing of male with the tornus produced to a pointed lobe, the inner area with a fold containing a tuft of hair.

*1056. Neacerea brunnea.

Neacerea brunnea, Druce, ined.

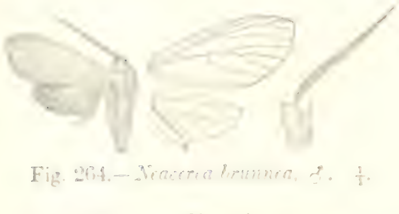

Fig. 264.—*Neacerea brunnea*, ♂. $\frac{1}{1}$.

♂. Dark red-brown; palpi in front and pectus greyish. Fore wing with faint traces of sinuous antemedial and postmedial lines and of discoidal lunule. Hind wing fuscous brown, with diffused semihyaline streak below median nervure.

Hab. BRAZIL, Espiritu Santo, 1 ♂ type † in Mus. Oxon. *Exp.* 30 millim.

B. Fore wing with veins 3, 4 from cell; 6 from upper angle.
  a. Abdomen banded above with crimson and black .... *rubricincta.*
  b. Abdomen crimson, with the terminal segment black... .. *minuta.*
  c. Abdomen orange, with dorsal patch and spots and lateral
    [illegible] ...... [illegible]
  Abdomen fuscous above.
    a'. Fore wing whitish with fuscous spots...................... *pusilla.*
    b'. Fore wing black, with oblique white band across end
      of cell to vein 2 .... *albiventus.*

1057. **Neacerea rubricincta**, n. sp. (Plate XVI. fig. 5.)

♀. Head and thorax grey-brown; vertex of head with two orange spots; thorax spotted with black; abdomen fuscous, with crimson bands above on each segment, the ventral surface with whitish bands except on terminal segments. Fore wing brownish grey; some black streaks from base, two in submedian interspace almost enclosing a short streak between them; a streak below medial part of costa; a spot in cell; an oblique medial mark above and below vein 1; two spots in end of cell and a spot below the angle; a series of spots just beyond the cell strongly bent inwards below vein 2, the spot on inner margin elongate and almost reaching tornus; a maculate band from costa before apex to vein 5, and a terminal series of spots. Hind wing hyaline, the veins and terminal area very broadly and irregularly blackish.

Hab. Panama, Taboga I. (*Mathew*), 1 ♀ type. *Exp.* 34 millim.

1058. **Neacerea minuta.**

Eucereon minutum, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 651, pl. 9. f. 19 (1877); Kirby, Cat. Het. p. 200.

♂. Head and thorax grey; palpi above and antennæ blackish; neck crimson; vertex of head, tegulæ, patagia, and thorax with black spots; legs grey and black; abdomen crimson above, the extremity blackish, the ventral surface white. Fore wing grey, with subbasal series of conjoined black spots; antemedial spots on costa and median nervure; a round spot in cell; two spots in end of cell and two beyond it; a postmedial oblique series of wedge-shaped marks, becoming smaller spots towards inner margin; a subterminal series of spots between vein 3 and apex, and a terminal series of points. Hind wing hyaline, the veins black; the inner area black; a broad terminal band expanding below costa to the cell.

Hab. Venezuela; Surinam, type † in Coll. Staudinger. *Exp.* 26 millim.

Subsp. 1. Fore wing with all the black markings much more extensive.—Bolivia, Songo (*Garlepp*), 1 ♂.

1059. **Neacerea maculosa**, n. sp.

♀. Head greyish, the palpi, antennæ, and a spot on vertex black, the back of head orange; thorax black, the tegulæ and patagia greyish in front; legs greyish and black, the coxæ yellowish; abdomen yellow, with large conjoined dorsal black patches on first four segments and spots on the next two, the last two segments black with the anal tuft greyish; a dorsal series of black spots. Fore wing brownish grey, with subbasal black spots on costa and below median nervure and a streak above inner margin; a spot in cell, with one on costa above it; two spots above middle of inner margin; a lunulate series of spots from above upper angle of cell to below lower angle, with three spots beyond the cell and three between them and inner margin; three spots below costa before

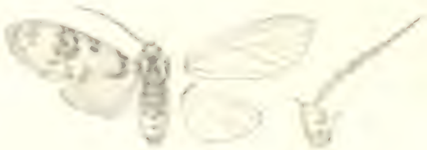

Fig. 265.—*Neacerea maculosa*, ♀. 1/1.

apex, and a terminal series. Hind wing whitish, with the inner and terminal areas fuscous black.

Hab. Amazons, Para (*Bates*), 1 ♀ type. *Exp.* 40 millim.

1060. Neacerea pusilla. (Plate XVI. fig. 23.)

? *Sphinx daros*, Cram. Pap. Exot. i. pl. 48. F (1775); Kirby, Cat. Het. p. 175.

Acridopsis pusilla, Butl. Trans. Ent. Soc. 1878, p. 44; Kirby, Cat. Het. p. 165.

♀. Head and thorax grey marked with blackish; back of head with two crimson spots; abdomen black, the ventral surface crimson to near extremity. Fore wing violaceous grey, tinged in parts with pale brown; some black marks at base; an antemedial spot on costa and two small spots in submedian interspace; a spot in middle of cell and medial points above and below vein 1; two spots in end of cell and a spot below angle; a series of spots just beyond the cell, becoming short streaks beyond lower angle and bent inwards below vein 2; a maculate band from costa before apex to vein 5; a terminal series of spots, the spot above vein 3 elongate. Hind wing hyaline, with the terminal area broadly fuscous.

Hab. Amazons, R. Javary (*Trail*), 1 ♀ type. *Exp.* 28 millim.

1061. Neacerea albiventus. (Plate XVI. fig. 22.)

Neacerea albiventus, Druce, A. M. N. H. (7) i. p. 406 (1898).

♂. Head and thorax black; palpi in front and frons white; streaks on patagia and a fine dorsal line on thorax white; coxæ and stripes on legs white; abdomen suffused with brilliant blue, the ventral surface white; wings black. Fore wing with oblique semihyaline white band across end of cell to vein 2; cilia white at apex. Hind wing with the inner area semihyaline whitish; cilia white towards apex and tornus; underside with white fascia on basal half of costa, an apical patch and the inner area pure white.

Hab. Brazil, Minas Geraës, 2 ♂ type † in Mus. Oxon., Rio Janeiro, 1 ♂. *Exp.* 30 millim.

Sect. II. Fore wing with vein 10 from the cell; ♂ with a tuft of long hair protrusible from a groove on pectus behind mid coxæ.

A. Back of head with crimson patches.
  a. Abdomen with crimson bands on 5th, 6th, and 7th segments .... *rufiventris.*
  b. Abdomen without crimson bands.
    a^1. Fore wing with medial and postmedial hyaline bands .... *dizona.*
    b^1. Fore wing without hyaline bands .... *atava.*
B. Back of head olive-yellow .... *testacea.*

1062. Neacerea rufiventris.

Aclytia rufiventris, Schaus, P. Z. S. 1894, p. 228; Druce, Biol Centr.-Am., Het. ii. p. 352, pl. 72. f. 13.

Fuscous; back of head and tegulæ with paired crimson spots; basal joint of palpi and coxæ crimson; abdomen with narrow crimson bands on 5th, 6th, and 7th segments, the ventral surface crimson except terminal segment. Hind wing blackish, with semihyaline streaks in, below, and beyond cell.

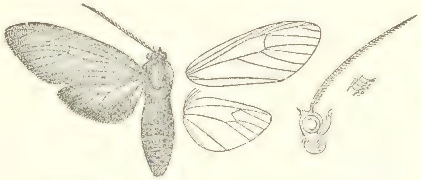

Fig. 266.—*Neacerea rufiventris*, ♀. $\frac{1}{1}$.

Hab. Mexico, Jalapa, 1 ♀; Bolivia, Bueyes, Coll. Staudinger. *Exp.* 46 millim. Type† in Coll. Schaus.

*1063. Neacerea dizona. (Plate XVI. fig. 12.)

Neacerea dizona, Druce, A. M. N. H. (7) i. p. 406 (1898).

♂. Black-brown; frons whitish at base; 1st joint of palp crimson; back of head with two crimson spots; throat, coxæ, and streaks on femora whitish; abdomen with ventral white fascia. Fore wing with medial semihyaline band from subcostals to submedian fold, the veins and a streak in cell crossing it dark; a similar postmedial band from vein 7 to below 4. Hind wing hyaline, the veins black; the terminal area black, expanding widely to apex and towards tornus, where its inner edge is dentate.

Hab. Cayenne, 1 ♂ type † in Mus. Oxon. *Exp.* 32 millim.

*1064. Neacerea atava. (Plate XVI. fig. 24.)

Heliura atava, Druce, Biol. Centr.-Am., Het. i. p. 74; Kirby, Cat. Het. p. 164.

♀. Head and thorax brownish fuscous; back of head with two crimson spots; coxæ crimson; abdomen black, with subdorsal series of metallic blue patches. Fore wing brownish fuscous. Hind wing semihyaline whitish, the veins and terminal area fuscous suffused with blue, the latter narrowing between veins 2 and 5.

Hab. PANAMA, Colon (*Bouchard*). *Exp.* 42 millim. Type † in Coll. Druce.

1065. **Neacerea testacea.** (Plate XVI. fig. 6.)

Heliura testacea, Druce, Biol. Centr.-Am., Het. i. p. 74 (1884); Kirby, Cat. Het. p. 164.

♀. Greyish brown; basal joint of palpi and vertex of head olive-yellow; fore coxæ orange; abdomen with the ventral surface orange-yellow except at extremity. Fore wing with very slight traces of a medial hyaline patch in and below cell and of an oblique band from below costa beyond middle to near middle of termen, both much more distinct on underside. Hind wing hyaline, the veins and the terminal area very broadly suffused with fuscous.

Hab. GUATEMALA (*Champion*), 1 ♀, Godman-Salvin Coll.; PANAMA, Chiriqui. *Exp.* 40–42 millim.

Genus HELIURA.

Type.

Heliura, Butl. Journ. Linn. Soc., Zool. xii. p. 417 (1876) ...... *rhodophila.*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with rather short branches dilated at extremity; tibiæ with the spurs moderate. Fore wing with vein 3 from before angle of cell; 4, 5 from angle or shortly stalked, 6 from below upper angle, 7, 8, 9, 10 stalked, 11 from cell. Hind wing with the cell long, vein 2 from well before angle; 3, 4 stalked, 5 from well above angle; 6, 7 from upper angle.

SECT. I. Male with the tornus produced into a long acute lobe containing a tuft of long hair.

A. Abdomen crimson.
  a. Legs spotted with pink; fore wing with fuscous points on the postmedial semihyaline spots .... *tetragramma.*
  b. Legs without pink spots; fore wing without dark points on the postmedial semihyaline spots .... *rhodophila.*
B. Abdomen fuscous, with lateral blue patches .... *hecale.*

1066. **Heliura tetragramma.** (Plate XVI. fig. 9.)

Euchromia tetragramma, Wlk. i. 268 (1854); Kirby, Cat. Het. p. 164.

♂. Head and thorax fuscous brown; back of head, tegulæ, patagia, and metathorax with rufous points; coxæ and base of femora pink; legs spotted with pink; abdomen crimson, with the 1st segment blackish; lateral ochreous patches on basal segments; the terminal segment black; sublateral black fasciæ. Fore wing semihyaline, with fuscous-brown markings occupying most of wing; the veins streaked with dark red; the inner area fuscous brown, crossed by the obscure pale antemedial and medial dentate lines; some fuscous below costa; a round spot in middle of cell; a broad band with waved edges from costa beyond middle to tornus, expanding below vein 5, and with dark points on the hyaline spots beyond it; an irregular band from costa before apex to vein 5; a subterminal series of spots and a terminal series of points on the veins. Hind wing hyaline, the veins and the terminal area broadly and irregularly suffused with fuscous.

Hab. Amazons, Santarem (*Bates*), 1 ♂ type. *Exp.* 28 millim.

1067. Heliura rhodophila.

Eucerea rhodophila, Wlk. vii. 1638 (1856); Kirby, Cat. Het. p. 200.
Heliura pyrrhosoma, Butl. Journ. Linn. Soc., Zool. xii. p. 418 (1876); Druce, Biol. Centr.-Am., Het. ii. pl. 72. f. 19; Kirby, Cat. Het. p. 164.
Heliura solicauda, Butl. Journ. Linn. Soc., Zool. xii. p. 418; id. Ill. Het. i. p. 44, pl. 9. f. 4 (1876); Kirby, Cat. Het. p. 164.

♂. Head and thorax dull black; palpi reddish at base; back of head with two reddish marks; shoulders, patagia, and metathorax with ochreous marks; coxæ and femora ochreous; abdomen crimson, the 1st segment black, the next three with pale lateral patches; lateral black lines and the terminal segment black. Fore wing whitish; the veins streaked with red; some black spots on costa; a black patch at base of inner area; a spot at middle of cell and antemedial spots on each side of vein 1; a black bar across end of cell, two spots beyond the cell and three beyond lower angle, with two spots below them in submedian interspace and one above vein 2; a postmedial series of spots between costa and vein 5, and a terminal series. Hind wing hyaline, the veins and the terminal area broadly and irregularly fuscous black.

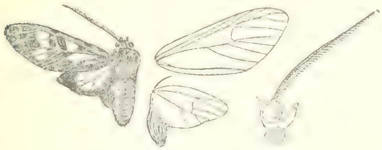
Fig. 267.—*Heliura rhodophila*, ♂. 1/1.

♀. Abdomen without the whitish lateral patches.

Hab. Honduras, 1 ♂, type *solicauda*; Costa Rica (*Underwood*), 2 ♀, Godman-Salvin Coll; Amazons, Para (*Bates*), 1 ♂, type *pyrrhosoma*. *Exp.* 38 millim. Type † from Amazons in Mus. Oxon.

* 1068. Heliura hecale.

Aclytia hecale, Schaus, P. Z. S. 1892, p. 277; id. Am. Lep. pl. i. f. 18.

♀. Black-brown; back of head with paired crimson spots; coxæ crimson; abdomen with lateral metallic blue patches. Fore wing with slight semihyaline patches in, below, and beyond end of cell, leaving a rounded discoidal patch. Hind wing hyaline, the veins and margins broadly black; the terminal band expanding towards tornus.

Hab. Peru. *Exp.* 42 millim. Type † in Coll. Schaus.

Sect. II. Hind wing of male with the tornus not produced and without tuft of hair.

A. Fore wing yellowish white with black spots.
  a. Abdomen with the terminal segments crimson, with dorsal black spots .... *thysbe*.
  b. Abdomen with the dorsal segments black .... *pierus*.
B. Fore wing hyaline with black margins........ .... *sanguipalpia*.

*1069. Heliura thysbe.

Acridopsis thysbe, Moschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 643, pl. 8. f. 14; Kirby, Cat. Het. p. 165.

♂. Head, thorax, and abdomen fuscous brown; vertex of head and tips of patagia white; abdomen with crimson dorsal patches on last three segments with black spots on them. Fore wing white; three antemedial black spots; two medial spots below costa and two above inner margin; a bar-shaped discoidal spot with a streak on costa above it and two spots beyond it; three spots in base of interspaces between veins 2 and 5, with two spots below them above inner margin; a band from costa before apex to vein 5 and spot below vein 5; a patch on termen from apex to vein 5; two large spots between veins 3 and 5, and two small spots towards tornus. Hind wing with the basal half white, the veins and terminal half blackish.

Hab. SURINAM. Type + in Coll Staudinger. *Exp.* 36 millim.

1070. Heliura pierus.

Sphinx pierus, Stoll, Pap. Exot. iv. pl. 367. E (1781). Kirby, Cat. Het. p. 200.

Acridopsis lucis, Butl. Trans. Ent. Soc. 1878, p. 45; Kirby, Cat. Het. p. 165.

♀. Head and thorax olive-grey spotted with fuscous; back of head with two crimson spots; coxæ crimson; abdomen fuscous black, with traces of crimson lines between some of the segments. Fore wing greyish, suffused with olive-yellow towards base; some black streaks at base, the one above inner margin curved and reaching middle of wing; a round spot in cell, with streak on costa above it; a bar across end of cell and three irregular spots between it and inner margin; a series of spots just beyond the cell, the two between veins 3 and 5 elongate; a subterminal maculate band from costa to vein 5; a terminal series of spots. Hind wing fuscous black, with a hyaline patch in and below the cell.

Hab. AMAZONS, R. Jutahi (*Trail*), 1 ♀, type *lucis*. *Exp.* 34 millim.

1071. Heliura sanguipalpia, n. sp.

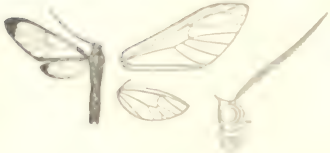

Fig. 268.—*Heliura sanguipalpia*, ♂. ¼.

♂. Head and thorax black; palpi and a patch between antennæ crimson; frons white below; meso- and metathorax with paired crimson points; coxæ white; abdomen black, the anal tufts crimson below, the ventral surface white; wings hyaline, the veins and margins narrowly black; the terminal band expanding widely towards apex of each wing.

Hab. BRAZIL, Blumenau, 1 ♂ type. *Exp.* 26 millim.

Genus EUCEREON.

	Type.
Eucereon, Hübn. Verz. p. 123 (1827)	*archias.*
Erithales, Poey, Cent. Lep. Cuba, p. 16 (1832)	*guacolda.*
Theages, Wlk. iii. 721 (1855)	*leucophæa.*
Acridopsis, Butl. Journ. Linn. Soc., Zool. xii. p. 418 (1876)	*lobobasis.*
Galethalea, Butl. Journ. Linn. Soc., Zool. xii. p. 424 (1876)	*pica.*

Proboscis fully developed; palpi upturned to vertex of head, the 3rd joint moderate; antennæ bipectinate, the branches dilated at extremity and ending in bristles; tibiæ with the spurs moderate. Abdomen clothed with rough hair on dorsum and with lateral dorsal tufts. Fore wing with vein 3 from near or from angle of cell; 4, 5 from angle; 6 from or from just below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from well before angle of cell; 3, 4 shortly stalked or from cell; 5 from or from just above angle; 6, 7 from upper angle; 8 usually present as an aborted fragment not reaching costa.

Sect. I. (*Eucereon*). Abdomen of male with lateral tufts of long hair from basal segment; hind wing with the tornus lobed and thickly scaled.

1072. Eucereon archias.

Sphinx archias, Stoll, Suppl. Cram. pl. 14. ff. 6–10 (1790); Kirby, Cat. Het. p. 200.

♂. Pale brown tinged with fuscous; vertex of head with two orange and crimson spots; coxæ crimson; abdomen crimson, the 1st segment brown, the terminal segment blackish, lateral fuscous stripes, the ventral surface yellow except extremity. Fore wing greyish; the basal area with fuscous streaks in the interspaces; a curved antemedial series of three striæ below the cell; a round spot in cell, with oblique striga from costa above it; two spots in end of cell, the lower sometimes connected with the medial spot; a series of spots beyond the cell from costa to vein 2, with a dentate line just beyond them strongly incurved below vein 2 and with dentate marks beyond it between vein 4 and costa; a series of marginal lunulate marks. Hind wing fuscous, with the inner area yellow.

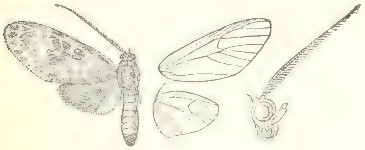

Fig. 269.—*Eucereon archias*, ♂. 1/1.

♀ as figured by Stoll has the hind wing pale, with dark terminal band and no yellow on inner area.

Hab. Surinam, Paramaribo (*Ellacombe*), 1 ♂. *Exp.* 36 millim.

Larva pale yellow, with tufts of long white hair on anterior and posterior somites, the thoracic and two last somites with dorsal black spots. *Food plant*, Orange. *Cocoon* greyish.

Sect. II. Hind wing of male with a fold on inner area containing rough scales.

1073. Eucereon minutum.

Eucereon minutum, Druce, Biol. Centr.-Am., Het. i. p. 87 (1884); id. ii. p. 363, pl. 73. f. 7.

Eucereon drucei, Kirby, Cat. Het. p. 201 (1892).

♂. Head, thorax, and abdomen reddish brown, the last with the last three segments orange-yellow above. Fore wing pale brownish grey, the veins brown and the interspaces suffused in places with brown: a dark speck at base; an indistinct waved brown antemedial line; a spot in cell and discocellular lunule; traces of an oblique medial line; an irregularly dentate subterminal line and a series of dentate marks just inside termen. Hind wing pale yellowish brown; the cilia and termen towards tornus whitish.

Fig. 270. *Eucereon minutum*, ♂. ½.

Hab. Panama (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 26 millim.

Sect. III. (*Acrulopsis*). Hind wing with the costa strongly lobed near base.

1074. Eucereon cinctum.

Eucereon cinctum, Schaus, J. N. Y. Ent. Soc. iv. p. 134 (1896).
Eucerea latifascia, Butl. Journ. Linn. Soc., Zool. xii. p. 419 (1876), nec Wlk.

♂. Head blackish, with two crimson spots behind; thorax brown, with black spots on tegulæ, patagia, and vertex; some yellow on metathorax; legs blackish, the coxæ and femora whitish; abdomen crimson, with large dorsal black patch extending to 4th segment; lateral black fasciæ; the terminal segment and half of the subterminal black; the anal tuft grey at tip. Fore wing grey-brown, some black marks at base; an antemedial series of three spots; a spot in cell; medial spots on each side of vein 1; a bar across end of cell and a spot below angle; a series of spots beyond the cell, becoming streaks beyond it and bent inwards below vein 3; a subterminal maculate band from costa to vein 5, and a terminal series of irregular spots. Hind wing semihyaline, the veins and terminal third of wing black; veins 3, 4 from angle, 5 from just above angle.

Fig. 271.—*Eucereon cinctum*, ♂. ½.

Hab. Trinidad, type in Coll. Schaus; Amazons, Para (*Bates*), 1 ♂. *Exp.* 38 millim.

SECT. IV. (*Galethalea*). Abdomen and hind wings of male normal.

- **A.** Abdomen black above.
  - *a.* Abdomen with the terminal segments shot with blue; fore wing bronze with fine grey markings .... *obscurum.*
  - *b.* Abdomen wholly black; fore wing bluish white, marked with yellow and black .... *maricum.*
  - *c.* Abdomen with five orange subdorsal spots on median segments .... *davidi.*
- **B.** Abdomen crimson, rarely orange-red.
  - *a.* Abdomen without dorsal black patch at base.
    - a^1. Abdomen with the extremity crimson; fore wing brown; hind wing fuscous.
      - a^2. Abdomen with the first two segments dark; fore wing with white spots .... *appunctatum.*
      - b^2. Abdomen with the 1st segment dark; fore wing without white spots .... *rosa.*
    - b^1. Abdomen with the anal tuft fuscous or whitish.
      - a^2. Fore wing grey, marked with fuscous or orange. *rosinum.*
      - b^2. Fore wing whitish, with purplish-grey markings and brownish spots.
        - a^3. Fore wing with the antemedial and medial series of spots irregularly sinuous; the anal tuft white .... *hogei.*
        - b^3. Fore wing with the antemedial and medial series of spots regular; the anal tuft fuscous and white .... *arenosum.*
    - c^1. Abdomen with the terminal segment black.
      - a^2. Thorax prominently spotted with white; fore wing white, with black and orange markings.
        - a^3. Head with the vertex mostly white; fore wing largely suffused with fuscous between the black spots .... *leria.*
        - b^3. Head with the vertex black; fore wing slightly suffused with fuscous between the black spots. *tarona.*
      - b^2. Thorax not spotted with white.
        - a^3. Abdomen without dorsal black spots.
          - a^4. Fore wing whitish to grey, with series of fuscous spots.
            - a^5. Fore wing with fuscous marks on veins and in interspaces .... *punctatum.*
            - b^5. Fore wing without fuscous marks on veins and in interspaces........... .... *balium.*
          - b^4. Fore wing dark brown with greyish lines ... *melanoperas.*
        - b^3. Abdomen with dorsal black spots; fore wing brownish grey, with irregular yellow-edged black spots.. *quadricolor.*
  - *b.* Abdomen with subtriangular black dorsal basal patch.
    - a^1. Fore wing black-brown with the lines crimson ...... *clementsi.*
    - b^1. Fore wing black-brown with the lines not crimson.
      - a^2. Fore wing black, with irregular white ante- and postmedial patches from costa .... *imriei.*
      - b^2. Fore wing brown or greyish, with blackish markings in the interspaces.
        - a^3. Antennæ white above; fore wing with prominent white-edged orbicular spot .... *chalcodon.*
        - b^3. Antennæ dark; fore wing with the orbicular not white-edged.
          - a^4. Fore wing with prominent large black spots in interspaces beyond lower angle of cell.
            - a^5. Fore wing with the antemedial line composed of spots slightly irregularly placed. *sylvius.*

b^5. Fore wing with the antemedial line fine and very highly dentate.
  a^6. Fore wing with vitta-shaped mark usually with brown centre on base of vein 1.
    a^7. Abdomen without dorsal series of black points; fore wing brown ...... *pseudarchias.*
    b^7. Abdomen with dorsal series of black points; fore wing greyish .... *[illegible].*
  b^6. Fore wing with black streak above vein 1. *bifascia.*
b^4. Fore wing with short streaks beyond lower angle of cell; all the markings narrow ...... *[illegible]*
c^4. Fore wing without prominent black markings beyond lower angle of cell.
  a^5. Fore wing pale brown, with the orbicular prominent and an obscure patch below lower angle of cell .... *mana.*
  b^5. Fore wing grey-brown, with the orbicular indistinct.
    a^6. Fore wing with black marks on vein 1 near base, below angle of cell, and below apex .... *myrtusa.*
    b^6. Fore wing with broad diffused black fascia from below the cell near base to below apex .... *patrona.*

C. Abdomen black brown, with quadrate orange-yellow patch on last two segments.
  a. Fore wing black-brown, with the veins and lines yellowish.
    a^1. Vertex of head with two orange patches............. *[illegible].*
    b^1. Vertex of head without orange patches .... *darantasia.*
  b. Fore wing brownish or yellowish white, with the veins and lines black.
    a^1. Back of head with orange patches .... *flavicaput.*
    b^1. Back of head with whitish patches .... *leucophæum.*

D. Abdomen with the proximal half black-brown, the distal half orange-yellow .... *lutetium.*

E. Abdomen orange-yellow, with subtriangular black-brown dorsal patch on basal segments.
  a. Fore wing without prominent black spots in interspaces beyond lower angle of cell.
    a^1. Fore wing with the ground-colour brown.
      a^2. Abdomen with lateral black fascia and without dorsal series of black spots.
        a^3. Fore wing without subterminal series of diamond-shaped spots.
          a^4. Fore wing with the antemedial line angled outwards below cell .... *marmoratum.*
          b^4. Fore wing with the antemedial line strongly angled inwards below cell .... *complicatum.*
        b^3. Fore wing with sub-terminal series of diamond-shaped spots .... *amadis.*
      b^2. Abdomen with dorsal and lateral series of black spots.
        a^3. Fore wing with diffused black patches near base below cell, below angle of cell, and towards apex .... *tripunctatum.*
        b^3. Fore wing with large diffused black patch towards termen .... *[illegible].*
      c^2. Abdomen with segmental rings expanding into dorsal spots; fore wing pale yellowish brown, streaked with brown .... *[illegible].*

b^1. Fore wing with the ground-colour grey .... *reniferum.*

c^1. Fore wing with the ground-colour white.

a^2. Fore wing with a broad very irregular postmedial black band .... *cœnobitum.*

b^2. Fore wing with the spots of postmedial area not forming a distinct band .... *pica.*

b. Fore wing with prominent black spots in the interspaces beyond lower angle of cell.

a^1. Fore wing with elongate black streak above base of vein 1; hind wing with broad black border .... *varium.*

b^1. Fore wing with short oblique mark above base of vein 1; hind wing with diffused fuscous on termen.

a^2. Fore wing rather elongate, suffused with olive-brown, the small spot below middle of cell elongate .... *setosum.*

b^2. Fore wing shorter and broader, the small spot below middle of cell round.

a^3. Fore wing with the veins suffused with olive-yellow .... *rogersi.*

b^3. Fore wing with the veins suffused with olive-brown .... *confine.*

F. Abdomen orange-yellow, with dorsal and lateral series of black spots.

a. Fore wing grey, with yellow-edged spots .... *myrina.*

b. Fore wing brownish ochreous, with oblique series of small spots .... *guacolda.*

G. Abdomen orange-yellow, with dorsal grey patches on first three segments .... *abdominale.*

H. Abdomen yellow, the terminal segment black .... *aoris.*

I. Abdomen grey or fuscous.

a. Abdomen with the extremity yellow.

a^1. Fore wing grey.

a^2. Fore wing with dark streaks on the veins and no streak in end of cell .... *ladas.*

b^2. Fore wing without dark streaks on the veins and with a short black streak in end of cell .... *xanthoperas.*

b^1. Fore wing yellow, with fuscous streaks on the veins.

a^2. Fore wing with curved subterminal band on apical half separate from termen .... *costulatum.*

b^2. Fore wing with three patches on apical area running out to middle of termen.

a^3. Fore wing with the veins streaked with yellow. *aroa.*

b^3. Fore wing with the veins not streaked with yellow .... *scyton.*

b. Abdomen with the extremity dark.

a^1. Fore wing yellow, with dark streaks on the veins; a subterminal band on apical half .... *phæoproctum.*

b^1. Fore wing pale brown, the terminal area clouded with fuscous .... *pometinum.*

c^1. Fore wing whitish with brown lines..................... *lineatum.*

d^1. Fore wing blackish brown, with diffused grey lines and patches.

a^2. Tegulæ leaden colour .... *plumbicollum.*

b^2. Tegulæ brown.

a^3. Fore wing with medial grey patch below cell. *discolor.*

b^3. Fore wing without medial grey patch below cell .... *nebulosum.*

e^1. Fore wing grey with the veins black. .... *merula.*

J. Head, thorax, abdomen, and wings almost pure white ... *album.*

1075. Eucereon obscurum.

Aclytia obscura, Moschl. Stett. ent. Zeit. xxxiii. p. 348 (1872); Druce, Biol. Centr.-Am., Het. i. p. 80; Kirby, Cat. Het. p. 173.
Epanycles stellifera, Butl. Ill. Het. i. p. 48, pl. 16. f. 10 (1877).

Head and thorax black, speckled with white; fore and mid tibiæ and tarsi marked with white; abdomen black, the terminal segments shot with blue. Fore wing bronze-black, with fine markings formed by white scales; a curved antemedial line with scattered white scales before it; an annulus in end of cell; a postmedial line very highly dentate beyond the cell, then recurved to below middle of cell, bent outwards again and joined by some fine streaks on inner area; cilia white towards tornus. Hind wing semihyaline, the veins and terminal area suffused with bluish fuscous.

Hab. Mexico, Tabasco (*H. H. Smith*); Costa Rica (*Zurcher*); Panama (*Champion*), Godman-Salvin Coll.; Cayenne; Amazons, R. Jutahi (*Trail*), type *stellifera*. *Exp.* 28-32 millim. Type † in Coll. Staudinger.

1076. Eucereon maricum.

Sphinx marica, Cram. Pap. Exot. i. pl. 20. F, G (1775); Butl. Ill. Het. i. p. 45, pl. 9. f. 6; Kirby, Cat. Het. p. 165.
Euchromia gryllacides, Wlk. i. 271 (1854); Kirby, Cat. Het. p. 165.
Eucerea thalassica, Feld. Reis. Nov., Lep. iv. pl. 102. f. 18 (1874); Kirby, Cat. Het. p. 165.
Acridopsis virescens, Moschl. Verh. zool.-bot. Ges. Wien, p. 644, pl. 10. f. 53 (1877). Kirby, Cat. Het. p. 165.

Head, thorax, and abdomen black; back of head with two crimson spots; tegulæ and patagia edged with orange; metathorax with orange patch; coxæ pale crimson. Fore wing bluish white; the veins streaked with orange, the inner and terminal areas suffused with yellow; some black streaks on basal area, longer towards inner margin; an obliquely curved antemedial line from submedial interspace to inner margin, sometimes joining the basal streak above vein 1; a round spot in cell; a bar across end of cell and spot below angle; a series of spots beyond the cell, becoming streaks between veins 5 and 3, then bent inwards; a subterminal maculate band from costa to vein 5; a terminal series of irregular spots. Hind wing bluish white; the veins black, the area from discocellulars to termen black, and a terminal band narrowing to tornus; veins 3, 4 stalked, 5 from just above angle.

Ab. 1. Hind wing with the terminal band narrow between vein 3 and tornus.

Hab. Amazons, R. Purus (*Trail*), 1 ♂, Para, 2 ♂, 1 ♀. *Exp.*, ♂ 38, ♀ 42 millim. Type † *virescens* in Coll. Staudinger.

1077. Eucereon davidi.

Galethalea davidi, Dognin, Le Nat. (2) iii. p. 14 (1889); id. Lép. Loja, p. 48, pl. 4. f. 4; Kirby, Cat. Het. pp. 172, 904.

♂. Head and thorax white; vertex of head, tegulæ, patagia, and metathorax with black spots; abdomen black, with orange lateral spots on segments 3 to 7. Fore wing black, with irregular white basal patch; an oblique antemedial bar with angled outer edge from subcostal nervure to vein 1, with a small streak above it; a lunate medial mark on median nervure, almost conjoined to a very irregular mark from vein 3 to inner margin, with a hamate mark above it; a point beyond upper angle of cell; an irregular curved postmedial band from costa to vein 2, with slight oblique streak below it; some small, irregularly placed, subterminal spots and two larger spots on termen at apex and below vein 2. Hind wing hyaline, the veins and a terminal band black, the latter expanding towards costa; vein 5 from above angle of cell.

Hab. Ecuador, Loja; Bolivia, Chaco (*Garlepp*), 1 ♂. *Exp.* 44 millim.

Subsp. 1. Abdomen with orange lateral spots on segments 3–5 only; fore wing with the white markings more extensive.—Peru, Chanchamayo. Coll. Staudinger.

*1078. Eucereon appunctatum.

Eucereon appunctata, Dognin, Bull. Soc. Ent. Fr. lx. p. clxxv (1892); id. Lép. Loja, pl. 8. f. 8; Kirby, Cat. Het. p. 905.

♀. Black-brown; neck with crimson ring; abdomen crimson above, the first two segments brown. Fore wing with the veins paler; a white spot below base of cell; a small quadrate spot in end of cell; a reniform spot beyond the cell between veins 10 and 5; an indistinct curved subterminal series of whitish points. Hind wing fuscous, whitish towards base; prominently so on underside.

Hab. Ecuador, Loja. *Exp.* 34 millim. Type † in Coll. Dognin.

1079. Eucereon rosa. (Plate XVI. fig. 17.)

Euchromia rosa, Wlk. i. 271 (1854); Druce, Biol. Centr.-Am., Het. i. p. 86; Kirby, Cat. Het. p. 200.

Head and thorax dark red-brown; vertex of head with two crimson points; coxæ orange-yellow; abdomen crimson, with the 1st segment brown and with lateral brown fasciæ, the ventral surface yellow. Fore wing dark red-brown; the veins pale yellowish; a pale curved antemedial line; a pale spot in cell; a pale postmedial line angled at vein 6 and sending a spur to join the subterminal line at vein 7, angled inwards on vein 5, excurved to vein 3, then strongly incurved to middle of inner margin; a pale dentate subterminal line angled outwards to margin at veins 5 and 2. Hind wing dark fuscous.

Fore wing with vein 6 below angle; hind wing with vein 5 from above angle.

Hab. Honduras, 1 ♀ type; Brazil, Castro Paraña, 1 ♂, Coll. Schaus. *Exp.* 28 millim. The type has the fore wing much rubbed near base.

1080. Eucereon rosinum. (Plate XVI. fig. 18.)

Euchromia rosina, Wlk. i. 270 (1854); Kirby, Cat. Het. p. 200.
Carales imprimata, Wlk. xxxi. 305 (1864); Kirby, Cat. Het. p. 201.
Eucereon rhodophila, Druce, Biol. Centr.-Am., Het. i. p. 86 (part), nec Wlk.

♂. Head and thorax grey, palpi spotted with black, vertex of head yellowish with a fuscous spot; patagia edged with fuscous; legs banded fuscous and white; abdomen crimson with lateral series of black spots, the anal tuft whitish, the ventral surface yellowish tinged with pink. Fore wing whitish, almost entirely suffused with grey; a basal series of conjoined black spots edged with yellow; an antemedial series of yellow-edged spots, the spot above vein 1 connected with the inner margin by a yellow line; a medial series of spots, with two spots beyond the cell and two short streaks beyond lower angle; the veins near end of cell streaked with yellow and the spots below vein 2 incurved and edged with yellow; a subterminal series of spots incurved below vein 2 and a terminal series, the spots of these two series large towards inner margin. Hind wing semihyaline white, irregularly suffused with fuscous on terminal area; veins 3, 4, 5 from angle.

♀ with the anal tuft fuscous or whitish.

Ab. 1. *imprimatum*. Fore wing with orange-yellow almost replacing the basal spots and more yellow below costa on the antemedial and medial series of spots; hind wing with the fuscous on termen narrow except at apex.

Hab. MEXICO, Vera Cruz, Coatepec (*Brooks*), Godman-Salvin Coll.; VENEZUELA, 1 ♀ type; TRINIDAD (*Hart*), 1 ♂; BRAZIL, Rio Janeiro, type *imprimatum* ♀. *Exp.* 30 millim.

1081. Eucereon hogei. (Plate XVI. fig. 11.)

Eucereon hogei, Druce, Biol. Centr.-Am., Het. i. p. 86 (1884); Kirby, Cat. Het. p. 200.

♀. Head and thorax purplish white mixed with pale brown; palpi and frons marked with fuscous; neck crimson; abdomen pale crimson above, the extremity whitish. Fore wing white, with very ill-defined pale purplish maculate bands; some pale brown spots at base and an antemedial series; two spots in middle and two in end of cell; a medial series with a larger spot at lower angle of cell, then bent inwards; an irregular subterminal series with a large spot below costa and conjoined to a spot on termen above tornus; a series of lunules just before termen from costa to vein 3, with points on the cilia beyond them. Hind wing pale brown, the cilia white; veins 3, 4 stalked.

Hab. MEXICO, Jalapa (*Hoege*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 38 millim.

1082. Eucereon arenosum.

Eucereon arenosum, Butl. Ill. Het. i. p. 51, pl. 17. f. 10 (1877); Druce, Biol. Centr.-Am., Het. i. p. 87 (part); Kirby, Cat. Het. p. 200.

♂. Head and thorax pale brown; the tegulæ with slight dark points; abdomen crimson, the extremity fuscous and the anal tuft whitish; a lateral series of black points; the ventral surface yellowish white. Fore wing grey, almost entirely suffused with brown; some dark spots at base; a subbasal spot above vein 1; an antemedial series of whitish-edged spots; a medial series with two spots beyond cell and two short streaks beyond lower angle, the spot below angle of cell large and the three spots between its inner edge and inner margin small; a postmedial series, the spots above veins 6 and 2 larger, the spots below vein 2 displaced inwards; a subterminal series of small spots, the one above tornus elongate; a series of points on the cilia. Hind wing pale brown; veins 3, 4 shortly stalked or from cell.

♀. Head and thorax grey, patagia edged with black; fore wing whitish, suffused with grey.

Hab. Brazil, R. Madeira (*Trail*), 1 ♂ type; Espiritu Santo. *Exp.*, ♂ 32, ♀ 38 millim.

1083. **Eucereon leria.**

Eucereon leria, Druce, Biol. Centr.-Am., Het. i. p. 87, pl. 9. f. 14 (1884); Kirby, Cat. Het. p. 200.

♀. Head and thorax variegated black and white; neck with some crimson; abdomen crimson above, with large lateral black spots and the terminal segment black; the ventral surface yellowish white, the segments edged with pale crimson and with slight brownish marks towards extremity. Fore wing white, with series of conjoined irregular black spots edged with yellowish and with dark grey suffusion between them; a subbasal series; an antemedial series with a larger V-shaped spot in cell; a medial series with a triangular spot beyond it at upper angle of cell and a V-shaped spot at lower angle; a subterminal series, with two spots below costa larger, and one above vein 2 conjoined to a spot at tornus of the terminal series. Hind wing fuscous, pale towards base; veins 3, 4 separate.

Hab. Panama, Chiriqui (*Champion*), 1 ♀, Godman-Salvin Coll. *Exp.* 36 millim. Type † in Coll. Staudinger.

1084. **Eucereon tarona**, n. sp. (Plate XVII. fig. 7.)

Head and thorax black-brown, some white on palpi in front and antennæ beyond middle; two crimson spots on vertex of head; patches of white on tegulæ, patagia, meso- and metathorax; coxæ crimson; legs ringed with white; abdomen crimson, with the extremity black-brown. Fore wing white, the veins and inner area fuscous; a white basal spot followed by conjoined black-brown streaks edged with orange; an irregular antemedial series of orange-bordered spots incurved to inner margin, the spot in cell large; two spots in end of cell and a series just beyond the cell, incurved below vein 3 and with some orange on it below costa, at lower angle of cell, and on vein 1; a postmedial irregular series with some orange streaks between them on the veins; an irregular terminal series, the spots at apex and tornus displaced inwards. Hind wing semihyaline, the veins, and inner and apical areas very broadly, fuscous brown; veins 3, 4, 5 from angle.

Hab. PANAMA, Chiriqui, 1 ♀ type; BRAZIL, São Paulo. *Exp.* 40 millim. ♂ in Coll. Schaus.

1085. Eucereon punctatum.

Chelonia punctata, Guér. Icon. R. Anim., Ins. p. 515 (1844); Kirby, Cat. Het. p. 200.
Eucereon mitigata, Wlk. vii. 1639 (1857); Kirby, Cat. Het. p. 200.
Eucereon cribrum, Moeschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 648; Kirby, Cat. Het. p. 200.
Eucereon zamora, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 681 (1894).
Eucereon reticulatum, Butl. Ill. Het. i. p. 50, pl. 17. f. 9 (1877); Kirby, Cat. Het. p. 200.
Eucereon arenosum, Druce, Biol. Centr.-Am., Het. i. p. 87 (nec Butl.).

♂. Head and thorax dark grey; palpi and vertex of head spotted with black, the back of head with yellow patches, neck with some crimson; tegulæ with black spots, patagia edged with black; metathorax with a yellow patch; abdomen crimson, paler below; a lateral series of black spots; the terminal segment black, the subterminal banded black and white below. Fore wing greyish white, more or less suffused with leaden grey, the veins streaked with grey; series of black spots with yellowish edges: a subbasal series with the spot above vein 1 displaced outwards; an antemedial series; a spot at middle of cell; a medial series with four spots beyond the cell, the spot below angle of cell elongate; a postmedial series bent inwards below vein 2; a subterminal series and points on the cilia from costa to vein 3 and a larger spot above tornus. Hind wing black-brown, with slight pale mark beyond lower angle of cell; veins 3, 4 stalked or from cell.

The Guatemala specimen has the fore wing less suffused with grey than those from the Amazon.

Hab. GUATEMALA (*Champion*), 1 ♂, Godman-Salvin Coll.; SURINAM, type † *cribrum* in Coll. Staudinger; AMAZONS, Chaves (*Austen*), R. Jutahi and Purus (*Trail*), type *reticulatum*; ECUADOR, type † *zamora*, Coll. Dognin. *Exp.* 34–38 millim. Type † *mitigata* in Mus. Oxon.

1086. Eucereon balium, n. sp. (Plate XVI. fig. 13.)

♂. Head and thorax grey marked with fuscous; back of head with two orange patches; tegulæ with fuscous spots, patagia edged with fuscous; metathorax with orange patch; coxæ pink; abdomen crimson, with lateral series of black spots and the extremity black. Fore wing grey; a subbasal band of conjoined fuscous streaks followed by a spot above vein 1; a curved antemedial series of spots followed by a spot in cell; two spots in end of cell; a series of spots beyond the cell, becoming short streaks beyond lower angle, bent inwards below vein 3, and the three spots above inner margin small; a subterminal series of spots interrupted between veins 5 and 3 and strongly incurved below vein 3; a terminal series of spots. Hind wing semihyaline, the veins and the terminal area broadly and irregularly suffused with fuscous; veins 3 and 4 stalked, 5 from just above angle of cell.

Hab. HONDURAS, 1 ♂ type. *Exp.* 36 millim.

1087. **Eucereon melanoperas**, n. sp. (Plate XVI. fig. 10.)

Head and thorax dark red-brown; vertex of head with two crimson points; coxæ pale crimson; abdomen crimson, with the 1st segment brown, lateral brown fasciæ, and the terminal segment brown. Fore wing dark red-brown, with the veins and markings pale purplish; an antemedial line, angled on median nervure, then excurved; two pale marks in cell defining the orbicular spot; a postmedial line, very strongly excurved between veins 5 and 2 and joining the crenulate subterminal line, then strongly incurved to inner margin before middle. Hind wing fuscous, the interspaces in, below, and beyond cell semihyaline; veins 3, 4 stalked.

Hab. AMAZONS, Ega, 1 ♀ (*Bates*); Rio Purus, 1 ♂ (*Trail*), type. *Exp.* 30 millim.

1088. **Eucereon quadricolor.** (Plate XVI. fig. 15.)

Theages quadricolor, Wlk. iii. 722 (1855); Druce, Biol. Centr.-Am., Het. i. p. 83; Kirby, Cat. Het. p. 202.

Head and thorax brownish grey; palpi black, with the end of 2nd and 3rd joints white; lower part of frons and base of antennæ black; tegulæ, patagia, and thorax spotted with black; coxæ pale pink; legs black and white; abdomen crimson, with dorsal black points and terminal segment black, a lateral series of black spots, the ventral surface whitish. Fore wing brownish grey, with irregular black spots edged by yellowish; two irregular conjoined spots at base and an oblique mark on inner margin; an antemedial spot on median nervure; conjoined obliquely placed spots on costa and in middle of cell; an elongate mark above vein 1; a somewhat **S**-shaped discocellular mark with spot above it on costa, a spot beyond upper angle and triangular spot beyond cell; a very obliquely curved postmedial series of spots joining the elongate mark on vein 1, with the spot below costa wedge-shaped and the spot below angle of cell larger; two points below costa towards apex, and a subterminal series between vein 5 and inner margin, the spot above vein 2 larger and the one below it displaced towards base; some terminal spots. Hind wing dark fuscous brown, with the cilia greyish.

Hab. BRAZIL, Rio Janeiro, 3 ♂, type. *Exp.*, ♂ 34, ♀ 42 millim.

Subsp. 1. Fore wing with all the spots smaller and separate, the elongate mark above vein 1 represented by two spots, and the spot below angle of cell small. Hind wing paler fuscous, the basal half whitish in male.

Hab. MEXICO, Jalapa (*Trujillo*), Cordova (*Rümeli*); COSTA RICA (*Underwood*); PANAMA (*Champion*): Godman-Salvin Coll.

1089. Eucereon clementsi.

Eucereon clementsi, Schaus, Am. Lep. p. 10, pl. i. f. 25 (1892).

Very dark brown; palpi ringed with crimson, basal joint of antennæ crimson in front; neck crimson; metathorax with two crimson spots; coxæ crimson; tibiæ and tarsi ringed with crimson; abdomen crimson, with triangular dorsal brown patch extending to 3rd segment; the terminal segment brown, lateral brown stripes. Fore wing with three crimson spots at base of costal area; a minutely dentate antemedial crimson line; the orbicular and reniform slightly outlined with crimson; an interrupted sinuous postmedial line with line inside it from vein 7 to 4, very much bent inwards below vein 4; a series of elongate subterminal spots slightly outlined with crimson. Hind wing fuscous, the interspaces in, below, and beyond cell hyaline; veins 3, 4, 5 from angle.

Hab. W. Indies, St. Lucia, 1 ♂ 1 ♀. *Exp.*, ♂ 36, ♀ 42 millim.

1090. Eucereon imriei.

Eucereon imriei, Druce, P. Z. S. 1884, p. 322, pl. 25. f. 6; Kirby, Cat. Het. p. 199.

Head and thorax black; neck crimson; thorax irrorated with ochreous and with two crimson spots on metathorax; coxæ crimson; legs ringed with white; abdomen crimson, with dorsal black patches decreasing to 4th segment, the terminal segment black; maculate lateral fasciæ. Fore wing black, irrorated with a few ochreous-white scales; two ochreous points at base; an irregular whitish antemedial patch from costa to median nervure and a similar postmedial patch extending to vein 3; subterminal and terminal series of points obsolescent towards tornus. Hind wing fuscous, semihyaline towards base; veins 3, 4, 5 from angle.

Hab. Guadeloupe, 1 ♀; Dominica, 1 ♂ cotype. *Exp.*, ♂ 34, ♀ 42 millim.

1091. Eucereon chalcodon.

Eucereon chalcodon, Druce, P. Z. S. 1893, p. 287, pl. 19. f. 6.

Head and thorax black; antennæ with the shaft white above; basal joint of antennæ and neck crimson, metathorax with white patch; coxæ crimson, legs with some white; abdomen crimson, the first two segments black above and the 3rd with a black patch, the extremity black, lateral black fasciæ, the ventral surface pale crimson except towards extremity. Fore wing black-brown; the veins whitish; a short angled subbasal line; a dentate antemedial line; the orbicular edged with white; a white line across end of cell meeting the sinuous postmedial line, which has a dentate line on its inner side from vein 7 to 3, and below vein 3 is very much bent inwards; the subterminal spot edged with white; cilia white above tornus. Hind wing fuscous, with the interspaces in, below, and beyond cell semihyaline; veins 3, 4, 5 from angle.

Hab. Brazil, São Paulo (*Jones*), Rio Janeiro. *Exp.* 42 millim. Type in Coll. Druce.

1092. Eucereon sylvius.

Sphinx sylvius, Stoll, Suppl. Cram. pl. 14. ff. 1–5 (1790); Kirby, Cat. Het. p. 200.

Eucereon lutulentum, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 650, pl. 8. f. 18 (1877); Kirby, Cat. Het. p. 199.

♂. Head and thorax brown and fuscous; back of head with two orange spots; metathorax with two whitish spots; coxæ pale crimson; abdomen crimson, the first four segments with dorsal brown patches decreasing in size, the terminal segment black; lateral black fasciæ; the ventral surface pale crimson; the last three segments blackish. Fore wing grey-brown, the basal area with two series of spots below costa and streaks above and below vein 1; an antemedial maculate line angled on vein 1; a round spot in cell; two spots in end of cell, and a series beyond it, becoming short streaks between veins 5 and 3, then sharply bent inwards to origin of vein 2; two small spots beyond the cell above veins 5 and 6; a postmedial series of wedge-shaped marks reduced to spots between veins 3 and 5; a subterminal series of spots, the one at tornus large, and a terminal series of points on the veins. Hind wing fuscous black, the interspaces in, below, and beyond end of cell semihyaline. Underside of fore wing with whitish spot in upper angle of cell, two beyond the angle, and two nearer termen between veins 3 and 5.

Hind wing with veins 3, 4, 5 from angle.

Hab. Surinam, type † *lutulentum* in Coll. Staudinger; Amazons, R. Jurua (*Trail*), 1 ♂, Santarem (*Bates*), 1 ♀. *Exp.* 36 millim.

Larva. Clothed with black and grey hair, thicker and longer towards extremity, giving it a triangular shape; the 1st somite with a pair of thick yellow tufts. *Food-plant*, Orange. *Cocoon* grey-brown.

1093. Eucereon pseudarchias, n. sp.

Eucereon archias, Druce Biol. Centr.-Am., Het. i. p. 85 (nec Stoll).

Head and thorax dark brown variegated with black; neck with some crimson or orange; coxæ crimson; abdomen crimson, with dorsal triangular black patch on basal segments, lateral black fasciæ, and the terminal segment black. Fore wing brown; basal black streaks on costal and inner areas; two points below the cell and a

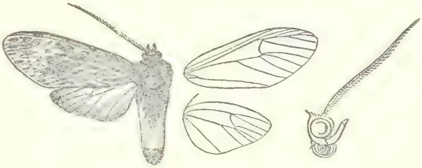

Fig. 272.—*Eucereon pseudarchias*, ♂. $\frac{1}{1}$.

brown-centred vitta on vein 1; a highly dentate antemedial fine line; two spots at middle of cell and one on costa above them; a medial series of small spots below the cell angled on vein 1; two spots in end of cell with spots on costa above them, two spots beyond the cell, and three between median nervules; a postmedial line dentate outwards on veins 6 and 4 and inwards above vein 5, inwardly oblique below vein 4; a series of wedge-shaped marks beyond it, those above veins 2, 5, and 6 large; series of elongate subterminal spots and terminal points on the veins. Hind wing semihyaline, the veins and terminal area very broadly fuscous; veins 3, 4 from cell.

Ab. 1. The spots on back of head, the coxæ and abdomen orange-red.—AMAZONS, R. Jurua.

Ab. 2. Fore wing with the vitta on base of vein 1 solid, the tooth of the antemedial line above it running to the base, and a single curved streak below it; hind wing with veins 3, 4 stalked.—Brazil.

Hab. MEXICO, Cordova (*Rümeli*), Tabasco (*H. H. Smith*); GUATEMALA (*Champion*), type: Godman-Salvin Coll.; HONDURAS; BRAZIL, Amazons, R. Jurua (*Trail*). *Exp.* 38 millim.

1094. **Eucereon æolum**, n. sp. (Plate XVI. fig. 16.)

Eucereon rhodophila, Druce, Biol. Centr.-Am., Het. i. p. 86 (nec Wlk.).

Pale brown; head, tegulæ, and thorax spotted with black; back of head and metathorax with orange spots; patagia streaked with black; legs streaked with yellowish grey; abdomen crimson, with dorsal black-brown patches decreasing to 3rd segment and followed by a series of points, the terminal segment black, lateral black fasciæ, the ventral surface greyish yellow. Fore wing pale brown; basal and subbasal series of short streaks, two of the latter series meeting on vein 1; an antemedial series of black spots followed by two spots in cell; two spots in end of cell, and a series just beyond the cell bent inwards below the cell to near the antemedial series; a postmedial series of spots oblique below vein 4, and followed by a series of dentate marks from costa to vein 4; a subterminal series of spots and a terminal series of points on the veins. Hind wing pale semihyaline, the veins, inner and terminal areas suffused with fuscous; veins 3, 4, 5 from angle.

Hab. MEXICO, Cordova (*Rümeli*), type, Coatepec (*Brooks*), Tabasco (*H. H. Smith*), Jalapa (*Trujillo*); GUATEMALA (*Champion*): Godman-Salvin Coll. *Exp.* 34 millim.

1095. **Eucereon latifascia.** (Plate XVI. fig. 14.)

Eucerea latifascia, Wlk. vii. 1639 (1856); Druce, Biol. Centr.-Am., Het. i. p. 85; Kirby, Cat. Het. p. 165.

Head and thorax pale brown; two orange spots on back ofhead neck with some crimson; palpi at sides, tegulæ, and patagia streaked with black; metathorax with yellowish spots and black medial spot; coxæ crimson; abdomen crimson, with blackish dorsal patch extending to 4th segment and followed by a more or less prominent series of points, the terminal segment black, broad lateral black fasciæ, the ventral surface pale crimson. Fore wing pale brown; the basal area with slight black streaks on costal half, prominent streaks on each side of vein 1, and an oblique streak on inner margin; two antemedial small spots in cell and one on costa; spots at middle and upper angle of cell, and a streak or two spots in its lower part; a streak below base of vein 2 and two wedge-shaped marks above inner margin; a series of spots beyond the cell, double between veins 7 and 3, then bent inwards and with a large elliptical spot above vein 2; a postmedial series of streaks, becoming large dentate marks above veins 2, 5, and 6 with whitish marks between them; a subterminal series of elongate spots and a terminal series of points on the veins. Hind wing hyaline, the veins and terminal area broadly and irregularly suffused with fuscous; veins 3, 4 from angle. Underside of fore wing with white spot in cell, two beyond it, and two between veins 3 and 5 nearer termen.

Hab. GUATEMALA (*Champion*); HONDURAS (*Blancaneaux*); PANAMA (*Champion*): Godman-Salvin Coll.; VENEZUELA; AMAZONS; PERU, Lima. *Exp.* 38–42 millim. Type † from Para in Mus. Oxon.

1096. Eucereon pilati.

Sericaria sylvius, Sepp, Surin. Vlind. ii. pl. 71 (1848), nec Stoll.
Euchromia pilatii, Wlk. i. 270 (1854); Druce, Biol. Centr.-Am., Het. i. p. 86; Kirby, Cat. Het. p. 200.
Eucereon conjunctum, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 649, pl. viii. f. 17 (1877); Kirby, Cat. Het. p. 200.

Head and thorax brown; neck with some crimson; palpi marked with black; patagia edged with black; abdomen crimson, with a dorsal brown patch on first two or three segments followed by one spot or a complete series; a lateral black fascia; the terminal segment black. Fore wing brown, with greyish streaks in the interspaces; four fine black streaks on basal area increasing in length towards inner margin; an oblique antemedial series of striæ; an oblique striga from middle of costa with a spot below it in cell and a streak in lower end of cell, sometimes divided into two spots; two series of striæ in the interspaces beyond the cell, and obliquely curved postmedial and subterminal series. Hind wing fuscous, with the interspaces in, below, and beyond cell semihyaline; veins 3, 4, 5 from angle.

Hab. MEXICO, Yucatan, type ♂, Presidio (*Forrer*); GUATEMALA (*Rodriguez*): Godman-Salvin Coll.; HONDURAS; SURINAM. *Exp.* 38 millim.

1097. Eucereon maia.

Eucereon maia, Druce, Biol. Centr.-Am., Het. i. p. 86, pl. 9. f. 13 (1884); Kirby, Cat. Het. p. 200.

Head and thorax pale brown mixed with dark brown; abdomen crimson above, with dorsal and lateral series of black points, the terminal segment black above, the ventral surface brownish white.

Fore wing brownish grey, irrorated and suffused with red-brown; indistinct dentate subbasal and antemedial lines arising from dark points on the costa; dark orbicular and reniform spots, the latter with dark suffusion above it on costa and below lower angle of cell; dentate postmedial and subterminal lines, the former bent inwards at vein 2. Hind wing whitish, the veins and termen brownish.

Fore wing with vein 6 from below angle of cell; hind wing with veins 3, 4, 5 from angle or 5 from above angle.

Hab. GUATEMALA (*Champion*); COSTA RICA (*Rogers*) type, Godman-Salvin Coll.; TRINIDAD (*Lady Broome*). *Exp.* 36 millim.

1098. Eucereon myrtusa.

Eucereon myrtusa, Druce, Biol. Centr.-Am., Het. i. p. 85 (1884), & ii. p. 362. pl. 73. f. 14; Kirby, Cat. Het. p. 200.

Head and thorax grey-brown and black; palpi and vertex of head spotted with black, the back of head with two crimson points; patagia black; coxæ yellowish; abdomen crimson, the 1st segment brown, dorsal and lateral maculate stripes, the extremity black, the ventral surface yellow. Fore wing grey, irrorated and clouded with black; an indistinct dentate antemedial line, much bent outwards below the cell and with a large elliptical black spot on its inner edge; an obscure round spot in cell and two spots in end of cell; an obscure dentate postmedial line, very oblique below vein 4 and with diffused black on its inner edge to vein 1; a dentate subterminal line with black mark on it above vein 5; a series of obscure black spots just inside termen, and terminal series of points on the veins. Hind wing semihyaline; the veins and terminal area broadly suffused with fuscous; veins 3, 4, 5 separate.

Hab. MEXICO, Jalapa (*Trujillo*), 1 ♂; COSTA RICA (*Underwood, Rogers*), 1 ♂, 1 ♀; Godman-Salvin Coll. *Exp.* 50 millim.

1099. Eucereon patrona.

Eucereon patrona, Schaus, Journ. N. York Ent. Soc. iv. p. 134 (1896); Druce, Biol. Centr.-Am., Het. ii. p. 364, pl. 73. f. 13.

♀. Head and thorax grey-brown; palpi and antennæ marked with black, tegulæ and patagia with broad black fasciæ; coxæ yellowish; legs banded with yellowish; abdomen crimson, with dorsal blackish patches decreasing to 4th segment and followed by black spots, the terminal segment black; lateral maculate black fasciæ; the ventral surface yellowish to near extremity. Fore wing grey-brown suffused with fuscous, and with broad diffused black fascia from near base below cell to termen below apex, towards which it is interrupted by the indistinct dentate postmedial and subterminal lines; some oblique striæ on costa and a series of terminal points. Hind wing semihyaline fuscous, with the veins dark; veins 3, 4, 5 separate.

Hab. MEXICO, Orizaba (*Schaus*), 1 ♀; VENEZUELA. *Exp.* 46 millim. Type ♀ in Coll. Schaus.

1100. Eucereon casca. (Plate XVII. fig. 1.)

Eucereon casca, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 680 (1894).

♂. Black-brown; vertex of head with two orange spots; patagia streaked with orange; shoulders with orange spots; metathorax with whitish patch; legs streaked with yellow and white; abdomen with orange dorsal patch on last two segments, the ventral surface with white bands on first three segments. Fore wing with bright orange streaks on the veins and interspaces of inner area, interrupted in places; two slight streaks in the cell, with whitish bar between their extremities; an oblique somewhat wedge-shaped white patch beyond the cell between veins 7 and 3, with orange spot above it on costa. Hind wing semihyaline, the veins, and margins broadly, blackish.

Hab. Ecuador, Loja, type † in Coll. Dognin; Bolivia, Chaco (*Garlepp*), 1 ♂. *Exp.* 40 millim.

1101. Eucereon darantasia.

Eucereon darantasia, Druce, A. M. N. H. (6) xv. p. 45 (1895); id. Biol. Centr.-Am., Het. ii. p. 363, pl. 73. f. 12.

♀. Black-brown; shoulders with orange spots; patagia streaked with orange; abdomen with the terminal segments and the distal part of subterminal orange above. Fore wing with the veins yellowish; a highly dentate yellowish antemedial line; a blackish elliptical spot in cell and round spot in end of cell, with whitish spot between them; a postmedial line angled outwards to the subterminal line below vein 4 and inwards to the antemedial line below the cell and outwards on vein 1. Hind wing fuscous, semihyaline towards base; veins 3, 4, 5 separate at origin.

Hab. Costa Rica (*Underwood*), 2 ♀, type, Godman-Salvin Coll. *Exp.* 46 millim.

1102. Eucereon flavicaput, n. sp.

Theages leucophæa, Druce, Biol. Centr.-Am., Het. i. p. 84, pl. 9. f. 9 (nec Wlk.).

Head, thorax, and abdomen fuscous black; frons with pale bar; back of head with orange patches; patagia with orange streaks; legs with pale streaks; abdomen with orange patches on last two segments, paired ventral series of pale patches except on terminal segments. Fore wing pale, mostly suffused with brownish yellow, the veins black; an antemedial black line angled outwards in cell and submedian interspace and inwards on median nervure; a large ring-spot from lower angle of cell to costa, embracing the discocellulars; a line from vein 5, angled on 4, then sharply bent inwards to below base of vein 2 and reaching inner margin beyond middle; a subterminal dentate line bent outwards to margin between veins 4 and 3; some terminal patches towards apex and tornus. Hind wing pale, the veins and terminal area broadly suffused with fuscous.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀; Guatemala (*Champion*), 1 ♀; Costa Rica (*Underwood*), 1 ♂, 2 ♀, type: Godman-Salvin Coll. *Exp.*, ♂ 42, ♀ 50 millim.

1103. Eucereon leucophæum. (Plate XVII. fig. 2.)

Theages leucophæa, Wlk. iii. 722 (1855); Kirby, Cat. Het. p. 202.

♂. Head black, proboscis pale, frons with metallic blue patch, back of head with whitish patches; thorax brownish white, the tegulæ and patagia edged with black, metathorax with a blue patch; legs black and white; abdomen black, with orange dorsal patch on last two segments and paired whitish ventral patches except on terminal segments. Fore wing with the veins black; a black patch at base of inner margin; an antemedial black line angled outwards in cell and submedian interspace and inwards on median nervure; a line from middle of costa to angle of discocellulars, then bent outwards along vein 5, obsolescent to vein 4, then strongly bent inwards to vein 2 and reaching inner margin beyond middle; a strongly dentate subterminal line, bent outwards to the margin between veins 4 and 3; some terminal marks on the veins towards apex and tornus. Hind wing whitish; the veins brownish, the termen fuscous, broadly so at apex.

♀ without blue on frons and metathorax; abdomen with the anal tuft only orange; hind wing fuscous, the costal area pale.

Hab. Brazil, Rio Janeiro, 1 ♂, 2 ♀, type. *Exp.* 46 millim.

1104. Eucereon lutetium.

Eucereon lutea, Druce, Biol. Centr.-Am., Het. i. p. 88, pl. 9. f. 11 (1884); Kirby, Cat. Het. p. 201.

♀. Head and thorax dark brown; neck ringed with yellow; abdomen dark brown, the terminal half yellow above. Fore wing dark brown, with rather ill-defined white spot beyond the cell between veins 5 and 7. Hind wing fuscous, whitish towards base.

Fore wing with vein 6 from below angle of cell; hind wing with veins 3, 4, 5 from angle.

Hab. Panama, Chiriqui (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim.

1105. Eucereon marmoratum.

Eucereon marmoratum, Butl. Ill. Het. i. p. 50, pl. 16. f. 4 (1877); Kirby, Cat. Het. p. 199.

Eucereon flavofasciatum, Moschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 651, pl. 9. f. 20 (1877); Kirby, Cat. Het. p. 199.

♂. Head and thorax pale and black-brown; palpi with the 1st joint yellow, the vertex of head yellow; abdomen black-brown, with orange-yellow lateral fasciæ beginning on 2nd segment, and at 4th becoming complete dorsally, the last segment black; the ventral surface with the first three segments pale yellow. Fore wing brownish grey; basal area with the veins and inner area streaked with black; the medial area with a cloudy blackish patch showing somewhat reticulate markings from costa to vein 2, leaving a pale spot in cell and its inner edge connected by two angulate lines with the inner margin; a highly dentate subterminal line, having a pale patch beyond it at middle and connected with termen by a cloudy patch above tornus. Hind wing black, with the interspaces hyaline in, below, and beyond cell; veins 3, 4, 5 from angle of cell.

Hab. Surinam, type† *flavofasciata* in Coll. Staudinger; Amazons, R. Jurua (*Trail*), 6 ♂, type. *Exp.* 40 millim.

1106. Eucereon complicatum.

Eucereon complicatum, Butl. Ill. Het. i. p. 50, pl. 16. f. 12 (1877); Kirby, Cat. Het. p. 200.

♂. Pale brown; head and thorax variegated with fuscous; 1st joint of palpi, vertex of head, and neck orange-yellow; patagia edged with black; abdomen with lateral orange fasciæ beginning from 2nd segment, and at 4th becoming complete dorsally; the basal dorsal area and extremity blackish; the ventral surface yellowish white to near extremity. Fore wing with short black streaks at base, two below cell and vein 1 joining the antemedial line, which is acutely angled inwards below cell; an oblique diffused line from costa at 1st line to the diffused patch at tornus, expanding into a spot in cell; an ill-defined annulus at upper angle of cell; a postmedial line curved inwards from costa to vein 2, below which it sends a spur inwards, then angled outwards and at vein 1 joining the 1st line; a highly dentate subterminal line bent out to termen at vein 5 and with a pale patch inside it. Hind wing with pale streaks in cell and beyond lower angle; veins 3, 4, 5 from angle.

Hab. Amazons, R. Jurua (*Trail*), 1 ♂ type. *Exp.* 42 millim.

1107. Eucereon amadis.

Eucereon amadis, Schaus, J. N. Y. Ent. Soc. iv. p. 133 (1896); Druce, Biol. Centr.-Am., Het. ii. p. 362, pl. 73. f. 10.

♀. Head and thorax black-brown; vertex of head with two small yellow points; abdomen with lateral yellow fasciæ beginning at 2nd segment and at 4th complete dorsally, the base of dorsum and the terminal segment black; sublateral black lines; the ventral surface yellow. Fore wing dark brown; the veins with pale streaks; an antemedial pale waved line, strongly angled outwards on vein 1; a postmedial pale sinuous line excurved from costa to vein 4, then strongly incurved; pale dentate subterminal and terminal lines forming diamond-shaped marks. Hind wing blackish, with the cell, the area below it and beyond lower angle semihyaline; veins 3, 4, 5 from angle.

Hab. Mexico, Coatepec (*Brooks*), Godman-Salvin Coll. *Exp.* 40 millim. Type † in Coll. Schaus.

1108. Eucereon tripunctatum.

Eucereon tripunctatum, Druce, Biol. Centr.-Am., Het. i. p. 85, pl. 9. f. 12 (1884); Kirby, Cat. Het. p. 200.

Reddish brown; palpi and back of head spotted with black; shoulders and patagia streaked with black; coxæ orange; abdomen orange, with triangular brown dorsal patch on first three segments, followed by a series of spots; a lateral series of spots; the terminal segment black. Fore wing irrorated and clouded with black; an indistinct dentate antemedial black line excurved at vein 1 and with elongate black spot on its inner side; a dentate postmedial line much bent inwards below vein 4, and with diffused black on its inner side between veins 4 and 2; an obscure dentate subterminal line, with black mark on its inner side above vein 5; a terminal series of points on the veins. Hind wing semihyaline; the veins, inner and terminal areas suffused with fuscous; vein 3 separate from 4, 5.

Hab. Mexico, Orizaba (*Flohr*), Jalapa (*Trujillo*); Guatemala (*Rodriguez*, *Champion*); Costa Rica (*Underwood*); Panama (*Champion*), type: Godman-Salvin Coll. *Exp.* 42 millim.

1109. Eucereon velutinum. (Plate XVII. fig. 14.)

Eucereon velutina, Schaus, J. N. Y. Ent. Soc. iv. p. 134 (1896).

♂. Brown; palpi and antennæ marked with black; tegulæ and patagia streaked with black; abdomen orange, the dorsum blackish to 3rd segment, then with dorsal series of black spots and band on terminal segment; lateral series of black spots; the ventral surface whitish. Fore wing pale brown irrorated with dark brown, the inner area suffused with brown; black marks at base below cell and vein 1; an indistinct antemedial line angled in cell, then oblique; three points on discocellulars and a mark on costa above them; an indistinct oblique postmedial line from vein 5 to inner margin, with black striæ and suffusion beyond it, a subterminal series of spots interrupted between veins 7 and 5, and with some points on termen beyond them. Hind wing fuscous, with black discocellular spot; veins 3, 4, 5 separate.

Hab. Brazil, São Paulo (*Jones*), 1 ♂. *Exp.* 32 millim.

1110. Eucereon striatum.

Theages striata, Druce, A. M. N. H. (6) iv. p. 86 (1889); id. Biol. Centr.-Am., Het. ii. p. 361, pl. 73. f. 9; Kirby, Cat. Het. p. 202.

Head and thorax grey and brown; base of palpi, head behind eyes, and two spots on vertex orange; abdomen orange, with dorsal fuscous-brown patch except on last three segments, segmental dark rings expanding into dorsal spots on terminal segments, the extremity dark; the ventral surface with paired greyish patches on basal segments. Fore wing pale grey-brown tinged with yellow, the interspaces rather irregularly streaked with black-brown; traces of a pale waved antemedial line; a diffused dark spot at middle of cell; two obscure oblique discocellular marks; traces of a pale postmedial line obtusely angled at vein 3, then very oblique to middle of inner margin, and with two oblique streaks from it to termen. Hind wing semihyaline, the apical area and slight suffusion on termen fuscous; veins 4, 5 slightly stalked; fore wing with vein 6 from below angle.

Hab. Mexico, Coatepec (*Brooks*), 1 ♀ type; Costa Rica (*Underwood*), 1 ♀: Godman-Salvin Coll.; Brazil, Rio Janeiro, 1 ♂. *Exp.* 40 millim.

1111. **Eucereon reniferum**, n. sp. (Plate XVII. fig. 26.)

Head and thorax grey; palpi banded with black; vertex of head with black spot; neck with yellow ring; tegulæ, patagia, and thorax streaked with black; abdomen orange, with triangular dorsal fuscous patch on basal segments, the extremity and lateral fasciæ black, the ventral surface white. Fore wing grey, the veins black; a trisinuate antemedial black line, with another line beyond it from submedian fold to inner margin; a triangular pale-centred spot in middle of cell, with oblique striga from costa above it; a pale-centred discoidal patch expanding greatly beyond lower angle of cell; two waved postmedial lines, strongly incurved below vein 3, the outer expanding into slight spots above veins 2 and 5; a subterminal series of five prominent spots between costa and vein 3, and one above tornus; a cilial series of small spots. Hind wing fuscous, darker towards apex.

Hab. Amazons, Pebas, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 36 millim.

1112. **Eucereon cœnobitum.**

Galethalea cœnobita, Möschl. Abhandl. Senck. Ges. xiv. p. 29, f. 1 (1886); Kirby, Cat. Het. p. 172.

Head and thorax black-brown, the upper part of frons and basal joint of antennæ white; a white band behind the tegulæ; legs ringed with white; abdomen black-brown, with maculate orange lateral stripes meeting dorsally on the two subterminal segments; the ventral surface white except the terminal segment. Fore wing with the ground-colour white, with black-brown spots conjoined into extremely irregular patches; a spot at base of costa; a lunulate patch on base of inner area; a triangular antemedial patch on costa and spot on inner margin; a broad postmedial band with very irregular edges, and often with spots on it near end of cell and tornus; a triangular patch from costa before apex to above vein 2; some spots on termen. Hind wing with the basal half whitish; the veins, a discoidal spot, and the terminal area irregularly clouded with fuscous; veins 3, 4 stalked.

Hab. Jamaica, 2 ♂, 1 ♀. *Exp.* 46 millim. Type † in Coll. Staudinger.

1113. Eucereon pica. (Plate XVII. fig. 21.)

Halesidota pica, Wlk. iii. 743 (1855); Druce, Biol. Centr.-Am., Het. ii. p. 358; Kirby, Cat. Het. p. 172.

♂. Head and thorax white; palpi and a patch on vertex of head black; antennæ black, with some white on shaft near base and extremity; some orange behind the eyes; black patches on tegulæ, shoulders, meso- and metathorax, the patagia edged with black; a slight orange tuft on metathorax; pectus and legs black and white; abdomen black, with broad maculate orange-yellow lateral stripes almost meeting on dorsum towards extremity; the ventral surface white except on distal segments. Fore wing yellowish white, with maculate subbasal black band angled outwards on median nervure; an antemedial black patch on costa conjoined to a rounded spot in cell; antemedial and medial series of spots below the cell ending in a patch on inner margin, the two spots above vein 1 sometimes conjoined; two conjoined discocellular spots connected with a patch on costa; an oblique series of spots beyond the cell, the two beyond lower angle displaced outwards, the spot above vein 2 large and wedge shaped and conjoined to a patch at tornus, the spot on inner margin elongate; a subterminal spot on costa conjoined to a large V-shaped patch below costa; small spots between veins 3 and 5; an irregular terminal series of spots, the spots at apex and between veins 3 and 5 largest. Hind wing white, with discoidal fuscous spots; an apical patch and the veins towards apex black; the inner margin black; veins 3, 4 stalked.

♀. Hind wing with all the veins black and a broad irregular fuscous terminal band.

Hab. BRAZIL, Rio Janeiro, 2 ♂, 1 ♀, type. *Exp.* 44 millim.

Subsp. 1. *ornata*, Herr.-Schaff. Aussereur. Schmett. f. 278 (1855); Kirby, Cat. Het. p. 172.

Brycea peruviana, Schaus, P. Z. S. 1892, p. 283, and Am. Lep. pl. ii. f. 16.

Fore wing pure white, with all the black markings reduced; tegulæ with black in front only; fore wing with the spots in middle of cell and on inner area before middle somewhat X-shaped; hind wing fuscous except the interspaces of discal area.

Hab. COSTA RICA (*Underwood*), 2 ♀, Godman-Salvin Coll.; BRAZIL; PERU, type+ *peruviana* in Coll. Schaus.

1114. Eucereon varium.

Euchromia varia, Wlk. i. 266 (1854); Butl. Ill. Het. i. p. 49. pl. 9. f. 5; Druce, Biol. Centr.-Am., Het. i. p. 84; Kirby, Cat. Het. p. 199.

♂. Head and thorax black-brown; back of head with two orange spots; metathorax with orange and whitish patch; coxæ orange; abdomen black-brown, the 4th segment with subdorsal orange patches, the next three orange above. Fore wing black-brown, the veins and lines greyish brown; a short curved subbasal line; an antemedial line angled on vein 1; a patch in end of cell; a postmedial sinuous line, with a sinuous line inside it between veins 7 and 3, and bent outwards to the subterminal dentate line at vein 4: a yellowish-white terminal patch between veins 2 and 4, with two of the terminal spots on it. Hind wing black, the interspaces in, below, and beyond the cell hyaline; vein 5 from above angle.

Hab. Panama?; Colombia?; Amazons, Para (*Bates*), 1 ♂ type. *Exp.* 44 millim.

1115. Eucereon setosum.

Phalæna setosa, Sepp, Surinam. Vlind. i. pl. 9 (1830); Kirby, Cat. Het. p. 199.

Head, thorax, and abdomen brown; palpi with the 1st joint yellow below; a yellow bar across frons and on 1st joint of antennæ; neck yellow; patagia edged with yellow; abdomen with maculate yellow lateral fasciæ, the spots nearly or quite joining on dorsum towards extremity; the ventral surface white to near extremity. Fore wing grey tinged with fuscous; the veins and submedian interspace streaked with fuscous; irregular series of pale-edged black-brown spots; two subbasal spots; an antemedial series, with elongate spot on costa and large spot in cell displaced outwards; an oblique medial series, with spots and streaks beyond the cell, and a large spot below angle of cell conjoined to a large spot of the subterminal series, the spots of which are elongate towards costa; a terminal series of spots, the one above tornus large. Hind wing semihyaline, the veins and terminal area fuscous; veins 3, 4 stalked or from cell.

Hab. Mexico, Presidio (*Forrer*); Guatemala (*Rodriguez*); Panama (*Champion*): Godman-Salvin Coll.; Venezuela; Surinam; Brazil, Bahia. *Exp.* 46 millim.

Larva. Green; early stages with head reddish, a dorsal yellow stripe and whitish tubercles and tufts of hair. Later stages with the head black, the tubercles reddish, the 3rd somite with long black dorsal and lateral tufts of hair, the 9th somite with long lateral tufts, and the 10th segment with long dorsal tuft. Food-plant, *Convolvulaceæ*.

Cocoon reddish.

1116. Eucereon rogersi.

Eucereon rogersi, Druce, Biol. Centr.-Am., Het. i. p. 88, pl. 9. f. 15 (1884); Kirby, Cat. Het. p. 201.

♂. Head and thorax pale olive-brown; palpi, vertex of head, and tegulæ spotted with black; orange spots on basal joint of antennæ and back of head; patagia streaked with black and orange; metathorax with black and orange spot; legs striped with grey; abdomen orange, with black-brown dorsal triangular patch extending to 6th segment, the terminal segment black, the ventral surface whitish to near extremity. Fore wing whitish, the veins and basal area suffused with pale olive-yellow, series of black spots edged with orange; three elongate subbasal spots, the one above inner margin a curved streak; two antemedial spots below cell;

a large spot in cell, with streak on costa above it; a medial series of spots, oblique below the cell, with two spots beyond discocellulars and two elongate spots beyond the cell; a subterminal series of elongate spots bent inwards below vein 2; a terminal series interrupted below vein 2 and with the spot at tornus displaced inwards. Hind wing hyaline, with the veins and terminal area irregularly suffused with fuscous; veins 3, 4 stalked or from cell.

♀ with the hind wing almost wholly fuscous.

Hab. Costa Rica (*Underwood*, *Rogers*); Panama (*Champion*), type, Godman-Salvin Coll. *Exp.* 40–48 millim.

1117. Eucereon confine.

Charidea confinis, Herr.-Schäff. Aussereur. Schmett. f. 277 (1855); Druce, Biol. Centr.-Am., Het. i. p. 80; Kirby, Cat. Het. p. 172.
Nelphe carolina, H. Edw. Ent. Am. ii. p. 166 (1887); Kirby, Cat. Het. p. 172.

Head and thorax pale brownish; palpi mostly black; vertex of head and tegulæ with black patches; patagia edged with black; some orange behind the head; pectus and legs fuscous brown and whitish; abdomen fuscous brown, with maculate orange lateral stripes almost meeting dorsally towards extremity; the ventral surface white except the terminal segment. Fore wing somewhat clouded with fuscous, the veins fuscous with yellowish edges; the spots edged with yellow; subbasal spots on costa and below median nervure, and a sinuous streak above inner margin; an antemedial streak on costa and a large spot in cell; antemedial and medial series of spots below the cell, meeting on inner margin; a medial spot on costa, two discocellular, and some spots beyond the cell; an irregular subterminal series of spots, the spots above veins 6, 2, and on inner margin elongate, and the spot above vein 2 connected with a streak above tornus; a terminal series of dentate marks between apex and vein 2. Hind wing white, the veins and inner and terminal areas irregularly clouded with fuscous; veins 3, 4 stalked or from cell.

Hab. Florida; Mexico, Orizaba, (*Flohr*); Guatemala (*Champion*); Costa Rica (*Underwood*): Godman-Salvin Coll. *Exp.* 42–46 millim.

1118. Eucereon myrina.

Eucereon myrina, Druce, Biol. Centr.-Am., Het. i. p. 84, pl. 9. f. 10 (1884); Kirby, Cat. Het. p. 199.

♀. Head and thorax grey; palpi spotted with black; tegulæ patagia, and vertex of thorax with yellow-ringed black spots; legs grey, ringed with black; abdomen orange-yellow, with dorsal and lateral series of black spots. Fore wing grey, with series of black spots edged with yellow and white; some basal spots; an antemedial series, with the two spots in cell displaced outwards; a medial series, with a cluster of spots beyond it on discocellulars, then incurved and connected with the antemedial series above vein 1;

a curved postmedial series bent inwards below vein 2, and a terminal series with the spot above tornus large. Hind wing semihyaline white, with dark terminal line, the inner area yellowish; vein 3 from before angle of cell.

Hab. GUATEMALA (*Champion*), 1 ♂, type, Godman-Salvin Coll. *Exp.* 42 millim.

1119. Eucereon guacolda.

Erithales guacolda, Poey, Cent. Lep. Cuba, pl. 14 (1832); Kirby, Cat. Het. p. 237.

Brownish ochreous or ochreous grey; sides of palpi, basal joint of antennæ, tegulæ, patagia, metathorax, and legs spotted with black; abdomen orange, with dorsal and lateral series of black spots, the ventral surface pale. Fore wing with short crimson and black streak below base of median nervure; some black points on costa, one on inner margin near base, one above vein 1 before middle, one in middle of cell, two in end of it, and one on discocellulars: a postmedial series of small spots angled below costa, then extremely oblique to inner margin before middle, the spot below angle of cell elongate; a very oblique subterminal series of points from vein 5 to inner margin; some spots on termen. Hind wing fuscous, the cell and inner area yellowish.

A specimen from Cuba is much paler than those from Jamaica.

Hab. CUBA; JAMAICA, 1 ♂, 1 ♀ (*Martin*). *Exp.* 40 millim.

1120. Eucereon abdominale. (Plate XVII. fig. 12.)

Carales abdominalis, Wlk. iii. 731 (1855); Kirby, Cat. Het. p. 199.

♀. Grey, suffused with fuscous brown; neck with some orange; abdomen orange-yellow; the first two segments greyish above and a dorsal patch on 3rd segment. Fore wing with obscure waved fuscous subbasal, antemedial, medial, and postmedial lines; a round spot in cell and discocellular patch; a series of short subterminal streaks in the interspaces. Hind wing fuscous; veins 3, 4, 5 from angle of cell.

Hab. VENEZUELA, 1 ♀ type. *Exp.* 36 millim. The type is in bad condition and the fore wing much rubbed.

*1121. Eucereon aoris.

Eucereon aoris, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 647, pl. 8. f. 16 (1877); Kirby, Cat. Het. p. 199.

♀. Head and thorax whitish; tegulæ yellowish; pectus fuscous; abdomen pale yellow, the terminal segment dark, lateral black fasciæ, the ventral surface white. Fore wing grey; three subbasal black spots; two antemedial points below costa and two below cell; two medial spots below costa and two in cell; a discoidal spot with one above it on costa, two beyond it and one below it; an oblique series of spots between vein 5 and middle of inner margin; a curved subterminal series of spots and a terminal series. Hind wing semihyaline white, with fuscous terminal band narrowing from costa to tornus.

Hab. Surinam. Type + in Coll. Staudinger. *Exp.* 40 millim.

1122. Eucereon ladas.

Eucereon ladas, Schaus, P. Z. S. 1892. p. 278, and Am. Lep. pl. i. f. 26.

♂. Head and thorax greyish white and fuscous; abdomen fuscous, with orange-yellow anal tuft and sometimes slight yellowish dorsal bands on last three segments, the ventral surface greyish. Fore wing grey-white, irrorated and the veins streaked with black-brown; slight spots at middle of cell and on discocellulars; faint traces of a dentate antemedial line; an irregular postmedial line bent outwards between veins 5 and 3, then strongly inwards and reaching middle of inner margin; rather obscure subterminal series of dentate marks. Hind wing fuscous brown.

♀. Abdomen with the last three segments orange above, with dark segmental lines; hind wing with the basal half pale.

Hab. Brazil, Rio Janeiro, 3 ♂, 1 ♀. *Exp.* 34 millim. Type + in Coll. Schaus.

1123. Eucereon xanthoperas, n. sp. (Plate XVII. fig. 13.)

Eucereon [illegible], Druce, Biol. Centr.-Am., Het. i. p. 84, & ii. p. 362 (nec Wlk.).

Brownish grey; abdomen with the last three segments orange-yellow. Fore wing irrorated with brown; dark points at base of median nervure and cell; a round brown spot in middle of cell, with whitish edge; a whitish-edged brown discocellular lunule conjoined to a short streak at lower angle of cell, with two points beyond it and slight mark on costa above it; a series of slight subterminal dentate marks, the one above vein 5 running more inwards. Hind wing semihyaline brownish white; vein 3 from or from before angle of cell.

Hab. Mexico; Guatemala (*Champion*); Costa Rica (*Underwood*), type: Godman-Salvin Coll. *Exp.*, ♂ 30, ♀ 34 millim.

1124. Eucereon costulatum.

Charidea costulata, Herr.-Schäff. Aussereur. Schmett. i. f. 276 (1855); Druce, Biol. Centr.-Am., Het. i. p. 87 (part); Kirby, Cat. Het. p. 201.

Head, thorax, and abdomen fuscous; vertex of head with two orange spots; shoulders with orange spots; patagia streaked with orange; abdomen with the last segment orange and two whitish ventral patches on the first two segments. Fore wing yellow, with fuscous streaks on the veins and in submedian interspace to beyond end of cell; a short dark streak in cell, with a mark above it on costa; a large discocellular patch extending up to the costa; traces of an oblique series of spots on the veins beyond the cell; a subterminal band, broad and curved below costa, interrupted between veins 3 and 4 and bent out to tornus; a terminal band from apex to vein 3. Hind wing fuscous.

Fore wing with vein 6 from below angle of cell; hind wing with vein 3 separate from 4, 5.

Hab. PANAMA, Chiriqui (*Champion*), 2 ♂, 2 ♀, Godman-Salvin Coll.; VENEZUELA. *Exp.*, ♂ 30, ♀ 34 millim.

1125. **Eucereon aroa.** (Plate XVII. fig. 15.)

Eucereon aroa, Schaus, P. Z. S. 1894, p. 229.
Eucereon costulatum, Druce, Biol. Centr.-Am., Het. i. p. 87 (part).

♂. Head, thorax, and abdomen fuscous; vertex of head with two orange spots; shoulders with orange spots; patagia striped with orange; legs mostly pale; abdomen with the last segment orange, the first two segments with pale ventral patches followed by yellowish sublateral patches. Fore wing greyish, tinged in parts with yellow, the veins and submedian interspace streaked with fuscous to beyond the cell; a slight streak in middle of cell, with mark on costa above it; a discocellular lunule conjoined to the costa; traces of an oblique series of points on the veins beyond the cell; an oblique series of three spots from costa before apex to termen at vein 3; some diffused fuscous on apical part of termen. Hind wing pale, with fuscous suffusion on terminal area, especially towards apex.

♀. Abdomen with the last two segments orange, the ventral surface white to near extremity.

Fore wing with vein 6 from below angle of cell; hind wing with vein 3 separate from 4, 5.

Hab. MEXICO, Cordova (*Rümeli*), 1 ♂, 1 ♀; GUATEMALA (*Champion*), 1 ♀, Godman-Salvin Coll.; VENEZUELA, type in Coll. Schaus. *Exp.*, ♂ 32, ♀ 34 millim.

1126. **Eucereon scyton.**

Sphinx scyton, Cram. Pap. Exot. ii. pl. 99. B (1777); Kirby, Cat. Het. p. 202.

Head, thorax, and abdomen fuscous, the first two with patches of grey; vertex of head with two orange spots; patagia streaked with orange; abdomen with the extremity orange, and paired ventral white bands. Fore wing grey tinged with brown, the veins, cell, and submedian interspace streaked with black; an antemedial line angled below costa and in submedian interspace; a postmedial line oblique from costa to vein 3, where it is angled, then strongly incurved to middle of inner margin; a pale patch with dentate outer edge beyond it from costa to vein 3; the terminal area dark, with more or less conjoined and very irregular grey spots in the interspaces. Hind wing semihyaline fuscous, darker towards termen.

Hab. SURINAM; BRAZIL, São Paulo, 1 ♂. *Exp.* 32 millim.

1127. **Eucereon phæoproctum**, n. sp. (Plate XVII. fig. 16.)

Eucereon costulatum, Druce, Biol. Centr.-Am., Het. i. p. 87 (part).

Head, thorax, and abdomen fuscous; vertex of head with an orange patch, shoulders with orange spots; patagia striped with orange; abdomen with the basal segments whitish below. Fore wing yellow, the veins and submedian interspace streaked with fuscous to beyond the cell; a short streak in cell with mark on costa above it; a large discocellular spot conjoined to a mark on costa; traces of an oblique series of spots on the veins beyond the cell; a subterminal band, curved and wide towards costa, interrupted between veins 3 and 4 and bent out to tornus; a terminal band from apex to vein 3. Hind wing fuscous, paler towards base.

Fore wing with vein 6 from below angle of cell; hind wing with 3 separate from 4, 5.

Hab. GUATEMALA (*Champion*), 3 ♂, type; COSTA RICA (*Underwood*, *Rogers*), 5 ♀; PANAMA, Chiriqui (*Champion*), 1 ♂: Godman-Salvin Coll. *Exp.*, ♂ 26, ♀ 30 millim.

1128. **Eucereon pometinum.**

Eucereon pometina, Druce, A. M. N. H. (6) xiii. p. 172 (1894); id. Biol. Centr.-Am., Het. ii. p. 363, pl. 73. f. 11.

♂. Pale greyish brown. Fore wing irrorated with reddish brown; a diffused brown streak above inner margin; an obscure curved antemedial line; a discocellular spot extending up to the costa; a diffused oblique band from apex to inner margin beyond middle; an indistinct pale waved subterminal line with a blackish spot beyond it at tornus. Hind wing pale, suffused with fuscous towards termen, especially at apex.

Fore wing with vein 6 from below angle of cell; hind wing with vein 3 from angle of cell; 4, 5 shortly stalked.

Hab. PANAMA, Chiriqui (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 26 millim.

1129. **Eucereon plumbicollum**, n. sp. (Plate XVII. fig. 20.)

Dark chocolate-brown; frons, vertex of head, tegulæ, and front part of thorax silvery leaden colour. Fore wing with leaden point at base of costa; an oblique diffused whitish fascia below basal part of cell; a diffused discoidal spot and semilunulate patch from vein 4 to termen at vein 1. Hind wing fuscous brown, rather thinly scaled towards base; vein 5 from above angle of cell.

Hab. BRAZIL, Santa Catharina, 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 36 millim.

1130. **Eucereon lineatum.**

Theages lineata, Dognin, Lép. Loja, p. 48, pl. 4. f. 5 (1891); Kirby, Cat. Het. p. 905.

Head and thorax reddish brown and white; abdomen fuscous, with some whitish scales at base and extremity; obscure series of white lateral spots and ventral bands. Fore wing whitish, thinly scaled; a short reddish-brown subbasal band from costa; two obliquely curved and irregularly dentate antemedial lines; a pale-centred figure-of-8 shaped discoidal patch extending to costa; two irregularly dentate and obliquely curved postmedial lines, the outer expanding into patches towards costa and inner margin; an obscure irregularly dentate subterminal line expanding into patches at costa, middle and inner margin; some terminal points on the veins and a terminal line. Hind wing hyaline, the veins and terminal line brownish.

Hab. Ecuador, Loja; Bolivia, Chaco (*Garlepp*), 1 ♂. *Exp.* 46 millim.

1131. Eucereon discolor.

Eucerea discolor, Wlk. vii. 1640 (1856); Kirby, Cat. Het. p. 201.
Eucereon rububa, Druce, A. M. N. H. (6) xv. p. 46 (1895); id. Biol. Centr.-Am., Het. ii. p. 364, pl. 73. f. 17.

♂. Head black-brown; frons with metallic blue patch; thorax and base of abdomen greyish brown and black, the rest of abdomen black, with pale ventral patches on first two segments. Fore wing blackish brown, the inner area pale, conjoined to diffused pale ante- and postmedial bands; a pale spot in end of cell; obliquely curved obscure dark antemedial, postmedial, and subterminal lines; three diffused pale spots on termen. Hind wing pale, the apical area and termen suffused with fuscous.

Fore wing with vein 6 from below angle of cell; hind wing with vein 3 separate from 4, 5.

Hab. Costa Rica (*Underwood*), 1 ♂, type *rububa*, Godman-Salvin Coll.; Panama; Brazil, São Paulo (*Jones*), 2 ♀, Rio Janeiro. *Exp.* 30–46 millim. Type † in Mus. Oxon.

Subsp. 1. Greyer; hind wing entirely white except apical area.

Hab. Bolivia, R. Tanampaya (*Garlepp*), 1 ♀. *Exp.* 46 millim.

*1132. Eucereon nebulosum.

Eucereon nebulosum, Dognin, Lép. Loja, p. 49, pl. 4. f. 6 (1891); Kirby, Cat. Het. p. 905.

♀. Dark brown; frons with blue hair; abdomen paler. Fore wing with diffused grey antemedial band; a postmedial band somewhat curved from costa to vein 3, then interrupted to vein 2, where it is retracted to below end of cell; a greyish subterminal patch above middle and two above tornus. Hind wing pale semihyaline brownish, the termen and apical area browner.

Hab. Ecuador, Loja. *Exp.* 44 millim. Type † in Coll. Dognin.

*1133. Eucereon merula.

Theages merula, Dognin, Le Nat. (2) v. p. 278 (1891); id. Lép. Loja, pl. 8. f. 9; Kirby, Cat. Het. p. 905.

♂. Bluish grey; vertex of head blackish; palpi and patagia streaked with fuscous; abdomen blue-black, the hair on dorsum fuscous, the subterminal segment brown. Fore wing with the veins black; an oblique diffused medial black shade and patch in end of cell; an obscure subterminal shade incurved below vein 3; a terminal black line. Hind wing hyaline, the veins dark, the terminal area irregularly clouded with grey and black.

Hab. Ecuador, Loja. *Exp.* 42 millim. Type † in Coll. Dognin.

1134. Eucereon album.

Idalus alba, Druce, A. M. N. H. (6) xiii. p. 172 (1894); id. Biol. Centr.-Am., Het. ii. p. 366, pl. 73. f. 22.

♀. Pure white; antennæ with the branches blackish; wings rather thinly scaled.

Fore wing with vein 6 from below angle of cell; hind wing with veins 3, 4, 5 separate.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim.

Genus CORREBIA.

	Ty
Correbia, Herr.-Schäff. Aussereur. Schmett. p. 22 (1853)	*lycoides.*
Poeria, Wlk. i. 255 (1854)	*lycoides.*
Monica, Oberth. Ét. Ent. vi. p. 33 (1881)	*oberthuri.*

Proboscis fully developed; palpi porrect, downcurved, about twice the length of head, the 2nd joint fringed with hair above; antennæ bipectinate, with short branches dilated at extremity, the shaft fringed with hair above; tibiæ with the spurs moderate, mid tibiæ with a tuft of hair at base; abdomen long and slender, with lateral anal tufts. Fore wing long and narrow, the costa arched towards apex; vein 3 from angle of cell; 4, 5 stalked; 6 from long below upper angle, the discocellulars incurved below it; 7, 8, 9 on a long stalk, 7 curved; 10 from angle of cell; 11 from near angle. Hind wing with the cell very long; vein 2 from long before angle; 3 from near angle; 4, 5 from above or from angle or shortly stalked; 6, 7 from upper angle.

A. Fore wing with the medial area black or banded with black.
  a. Fore wing striated with blue; abdomen black and blue ... *oberthuri.*
  b. Fore wing without blue striæ; abdomen black and orange.
    a^1. Palpi, legs, and terminal part of abdomen below, black.
      a^2. Abdomen with the lateral yellow stripes not conjoined by a medial dorsal band .... *lycoides.*
      b^2. Abdomen with the lateral yellow stripes conjoined by a medial dorsal band .... *undulata.*
    b^1. Palpi, legs, and terminal part of abdomen below, yellow. *obtusa.*
B. Fore wing with slight medial black patch in and below cell... *agnonides.*
C. Fore wing without medial black band or patch.
  a. Fore wing orange.
    a^1. Fore wing with apical black patch .... *affinis.*
    b^1. Fore wing without apical black patch .... *raca.*
  b. Fore wing brown, with yellow patch above tornus .... *elongata.*

1135. Correbia oberthuri, n. n.

Mimica lycoides, Oberth. Ét. Ent. vi. p. 33, pl. x. f. 9 (1881), nec Wlk.; Kirby, Cat. Het. p. 904.

♂. Black; head, thorax, and abdomen suffused with blue; back of head with two orange spots; tegulæ and patagia streaked with orange; tarsi with the first joint white. Fore wing suffused with silvery blue in interspaces and finely striated with silvery blue; an orange patch near base of costa; a postmedial orange band, its outer edge angled at vein 5. Hind wing black, with slightly hyaline medial fascia; an orange patch on costa before apex; vein 5 from or from above angle of cell.

Hab. Peru; Bolivia, Chaco (*Garlepp*), 1 ♂. *Exp.* 42 millim.

1136. Correbia lycoides.

Euchromia lycoides, Wlk. i. 256 (1854); Butl. Ill. Het. i. p. 47, pl. 8. f. 10; Druce, Biol. Centr.-Am., Het. i. p. 76; Kirby, Cat. Het. p. 168.

Correbia ceramboides, Herr.-Schäff. Aussereur. Schmett. f. 265 (1855); Kirby, Cat. Het. p. 168.

Correbia subochrea, Herr.-Schäff. Corresp.-Blatt zool.-min. Regensb. xx. p. 115 (1866); Kirby, Cat. Het. p. 168.

Head, thorax, and abdomen black, with an orange band above frons and lateral orange stripes on head, tegulæ, and patagia; palpi orange at base below; coxæ orange; tarsi ringed with white; abdomen with lateral orange stripes varying in length and not extending to terminal segments, the first three segments and a spot on 4th ventrally orange. Fore wing orange-yellow, with a curved black streak at base; a broad medial blue-black band with irregularly sinuous edges; a large apical blue-black patch, its inner edge angled outwards towards termen at vein 5. Hind wing fuscous, with semihyaline patch in and below cell; orange spots on costa at base and before apex.

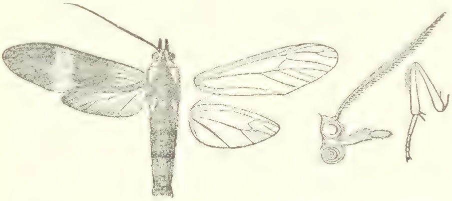

Fig. 273.—*Correbia lycoides*, ♂. $\frac{1}{1}$.

Ab. 1. *ceramboides*. Fore wing with the orange area mostly suffused with fuscous.

Hab. Mexico, Jalapa (*Trujillo*); Honduras (*Blancaneaux*); Panama (*Champion*), Godman-Salvin Coll.; Cuba; Venezuela, type; Brazil, Rio Janeiro (*Clark*). *Exp.* 40–50 millim. Type † *ceramboides* in Coll. Staudinger.

1137. Correbia undulata.

Pionia undulata, Druce, Biol. Centr.-Am., Het. i. p. 77, pl. 9. f. 3 (1884); Kirby, Cat. Het. p. 168.

Head and thorax black, irrorated with blue-grey; palpi orange at base below; an orange bar above frons and lateral orange stripes on sides of head, tegulæ, and patagia; coxæ orange; tarsi ringed with white; abdomen with broad lateral orange stripes on first four segments, meeting on dorsum on 3rd and 4th; a ventral orange fascia on first four segments. Fore wing orange, with curved black streak at base; a broad medial black band irrorated with blue-black and with irregularly sinuous edges; a large apical black patch irrorated with blue-grey, extending almost to tornus, its inner edge strongly indented at vein 5. Hind wing fuscous, hyaline towards base, and with orange spots on costa at base and towards apex.

Hab. Mexico, Orizaba (*Flohr*), 1 ♀; Guatemala, Vera Paz (*Champion*), 1 ♂, type, Godman-Salvin Coll. *Exp.*, ♂ 42, ♀ 50 millim.

1138. Correbia obtusa. (Plate XVII. fig. 9.)

Pionia obtusa, Druce, Biol. Centr.-Am., Het. i. p 77 (1884); Kirby, Cat. Het. p. 168.

♂. Head and thorax orange-red; antennæ except at base and tips of patagia black; abdomen black, with orange-red lateral stripes except on last two segments, on first four segments nearly meeting on dorsum and leaving triangular black patches; the ventral surface orange except on terminal segment. Fore wing orange, with slight fuscous mark at base and red streak at base of inner margin; a medial black band with irregularly sinuous edges; an apical bluish-black patch, its inner edge bent outwards at vein 5. Hind wing hyaline, fuscous towards termen, the costal area orange except at middle and apex.

♀. The lateral bands of abdomen broad to near extremity and leaving irregular dorsal patches of black; the ventral surface orange to extremity.

Hab. Guatemala (*Champion*), 1 ♂, 1 ♀, type, Godman-Salvin Coll. *Exp.*, ♂ 42, ♀ 44 millim.

*1139. Correbia agnonides. (Plate XVII. fig. 19.)

Pionia agnonides, Druce, Biol. Centr.-Am., Het. i. p. 77 (1884); Kirby, Cat. Het. p. 168.

♂. Head and thorax orange-yellow; legs mostly black, tarsi ringed with white; abdomen black, with lateral yellow fasciæ extending to 5th segment; the ventral surface orange to 5th segment. Fore wing orange-yellow, with black spot in middle of cell extending just below it and with some cloudy fuscous near it; an apical black patch slightly suffused with grey extending down to vein 3, its inner edge indented at vein 4. Hind wing semihyaline fuscous, with hyaline streaks in and below cell.

Hab. Nicaragua, Chontales (*Belt*). *Exp.* 40 millim. Type † in Coll. Druce.

1140. Correbia affinis.

Pionia affinis, Druce, Biol. Centr.-Am., Het. i. p. 77, pl. 9. f. 4 (1884); Kirby, Cat. Het. p. 168.

♂. Head and thorax orange-red; palpi and antennæ black, the former orange below; a blackish patch on vertex of head; abdomen with lateral orange stripes tapering to a point and not extending to last two segments; the first four segments orange below, joined to a spot on 4th segment. Fore wing orange-red, with rounded apical blue-black patch. Hind wing fuscous, hyaline towards base, the costal area orange-red, the apex black.

Hab. Guatemala (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 42 millim.

*1141. Correbia raca.

Pionia raca, Druce, A. M. N. H. (6) xviii. p. 37 (1896); id. Biol. Centr.-Am., Het. ii. p. 356, pl. 72. f. 18.

♂. Head black, the vertex and base of palpi orange; thorax orange; legs black and orange, tarsi ringed with white; abdomen black, with lateral streaks, and the ventral surface orange to 5th segment. Fore wing orange, with the cilia black. Hind wing semihyaline, irregularly suffused with black towards termen, the costal area orange.

Hab. Panama, Chiriqui, 1 ♂ type † in Coll. Staudinger. *Exp.* 40 millim.

*1142. Correbia ? elongata.

Chloropsinus elongatus, Dognin, Le Nat. (2) iv. p. 91 (1890); id. Lép. Loja, pl. iv. f. 3; Kirby, Cat. Het. p. 156.

♀. Head black, shot with blue; thorax and abdomen brick-red; patagia brown; legs brown, the femora red; abdomen with ventral series of white points. Fore wing red-brown, with triangular terminal yellow patch at tornus. Hind wing hyaline, with the veins and terminal area black-brown.

Hab. Ecuador, Loja. *Exp.* 34 millim. This species is unknown to me.

Genus **CORREBIDIA**, nov.

Type, *C. terminalis*.

Proboscis fully developed; palpi oblique, porrect towards extremity and extending about the length of head, the 2nd joint fringed with hair above; antennæ bipectinate, with rather short branches dilated at extremity and ending in bristles; tibiæ with the spurs moderate; abdomen rather long and slender. Fore wing rather short and broad, the costa highly arched towards apex; vein 3 from well before angle of cell; 4, 5 from angle; 6 from long below upper angle, the discocellulars angled inwards below it; 7, 8, 9 on a long stalk; 10 from angle, 11 from near angle. Hind wing with the cell long; vein 2 from long before angle; 3 and 4 from angle; 5 curved from below angle of discocellulars; 6, 7 from upper angle.

A. Fore wing blackish, with basal yellow spot on costa and pale postmedial band from costa to vein 2 .... *notata.*
B. Fore wing fulvous yellow, with medial black band.
  a. Fore wing with the base blackish; abdomen with the terminal segments yellow below .... *calopteridia.*
  b. Fore wing with the base yellow; abdomen with the terminal segments black below .... *terminalis.*
C. Fore wing fulvous yellow, without medial black band.
  a. Fore wing with large apical black patch; no streak on inner margin .... *elegans.*
  b. Fore wing without apical patch; a black streak on inner margin .. .. *striata.*

1143. Correbidia notata. (Plate XVII. fig. 3.)

Pionia notata, Butl. Trans. Ent. Soc. 1878, p. 45; Kirby, Cat. Het. p. 168.

♂. Purplish fuscous: palpi at base, sides of head, and tegulæ fulvous yellow; coxæ yellow; fore and mid femora and tibiæ banded with yellow; abdomen with slight lateral yellow streaks on basal segments; the ventral surface yellow at base, then giving off sublateral streaks which meet towards extremity. Fore wing with fulvous yellow marks at base of costa; a postmedial semihyaline whitish band, yellow at costa, extending down to vein 2, and with a spot in the interspace below it. Hind wing semihyaline fuscous, whitish towards base.

Hab. AMAZONS, Rio Jutahi (*Trail*), 1 ♂ type. *Exp.* 26 millim.

1144. Correbidia calopteridia. (Plate XVII. fig. 22.)

Pionia calopteridia, Butl. P. Z. S. 1878, p. 381; Kirby, Cat. Het. p. 168.

♂. Purplish fuscous; palpi fulvous yellow at base; lateral stripes on head, tegulæ, and patagia; coxæ and base of femora yellow; fore tibiæ and tarsi banded with yellow; abdomen with lateral yellow stripes narrowing to a point and not extending to terminal segments; the ventral surface yellow to extremity. Fore wing fulvous yellow; the base with oblique black patch; a broad medial black band with sinuous edges; the inner area mostly black; a large apical black patch extending down to vein 2, and with its inner edge angled outwards at vein 5. Hind wing semihyaline yellowish, the veins darker; diffused fuscous on terminal area, especially at apex and tornus.

Hab. AMAZONS, Pará (*Bates*), 1 ♂ type. *Exp.* 32 millim.

1145. Correbidia terminalis.

Pionia terminalis, Wlk. vii. 1633 (1856); Kirby, Cat. Het. p. 168.
Charidea cimicoides, Herr.-Schäff. Corresp.-Blatt zool.-min. Ver. Regensb. xx. p. 116 (1866); Kirby, Cat. Het. p. 168.
Pionia calopteridia, Druce, Biol. Centr.-Am., Het. i. p. 77, nec Butl.

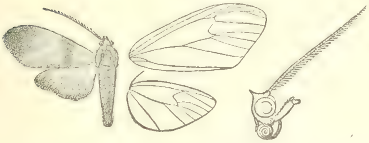

Fig. 274.—*Correbidia terminalis*, ♂. $\frac{1}{1}$.

Head and thorax fulvous yellow; palpi at extremity, antennæ, and a dorsal stripe on head and thorax blackish; pectus, coxæ, and base of femora yellow; abdomen fuscous, with lateral orange streak fining to a point and not reaching extremity, the ventral surface yellow at base. Fore wing fulvous yellow, with medial rather narrow fuscous band; a large apical purplish-black patch, its inner edge angled outwards at vein 5. Hind wing yellow, the inner and terminal areas fuscous.

Hab. W. INDIES (*not* BRAZIL), 1 ♂ type. *Exp.* 28 millim.

Subsp. 1. Fore wing with the medial band much wider and with sinuous edges; some diffused black on inner margin. Hind wing with a medial black spot on costa below, varying much in size.

Hab. MEXICO, Tabasco, Vera Cruz (*H. H. Smith*); GUATEMALA (*Champion*); COSTA RICA (*Underwood*); PANAMA (*Champion*): Godman-Salvin Coll.; CUBA; VENEZUELA. *Exp.* 26–32 millim.

1146. Correbidia elegans.

Pionia elegans, Druce, Biol. Centr.-Am., Het. i. p. 78, pl. 9. f. 6 (1884); Kirby, Cat. Het. p. 168.

Fulvous orange; palpi at extremity, a band on frons, a patch on vertex of head, and antennæ black; legs black, the coxæ and base of femora orange; abdomen fuscous black, with lateral orange stripe fining to a point and not extending to terminal segments. Fore wing with large purplish-black apical patch, its inner edge angled at vein 5; cilia black. Hind wing semihyaline yellowish, the terminal area broadly suffused with fuscous, especially towards apex and tornus. Underside with a black spot at middle of costa.

Hab. MEXICO, Vera Cruz (*H. H. Smith*), 1 ♂, Orizaba (*Flohr*), 1 ♀; PANAMA (*Champion*), 2 ♂, type, Godman-Salvin Coll. *Exp.* 28 millim.

1147. Correbidia striata.

Pionia striata, Druce, Biol. Centr.-Am., Het. i. p. 78, pl. 9, f. 5 (1884); Kirby, Cat. Het. p. 168.

♂. Fulvous orange; palpi at extremity and antennæ black; legs black, the coxæ and base of femora orange; abdomen fuscous, with lateral orange streaks, and the ventral surface orange except on terminal segments. Fore wing with black streak on inner margin not reaching base or termen; some fuscous suffusion on terminal area, more prominent on underside, and usually a more or less developed short terminal black streak between veins 4 and 5. Hind wing semihyaline, the terminal area suffused with fuscous, most widely towards apex and tornus.

Hab. Panama, 3 ♂, type, Godman-Salvin Coll. *Exp.* 30-32 millim.

Genus SCEPSIS.

Type.
Scepsis, Wlk. ii. 285 (1854) .... *fulvicollis.*

Proboscis fully developed; palpi obliquely upturned and not reaching vertex of head, the 3rd joint porrect; antennæ bipectinate, with short branches dilated at extremity, the shaft somewhat dilated at middle, especially in female; tibiæ with the spurs short. Fore wing long and narrow, the apex somewhat acuminate and the outer margin oblique; vein 3 from before angle of cell; 4, 5 from angle or separate; 6 from well below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from before angle; 5 from above angle; 6, 7 from upper angle.

A. First joint of palpi, throat, and back of head yellow .... *fulvicollis.*
B. Palpi, throat, and back of head black .... *wrighti.*

1148. Scepsis fulvicollis.

Glaucopis fulvicollis, Hb. Samml. ex. Schmett. i (1827); Stretch, Zyg. & Bomb. N. Am. p. 21, pl. 1. f. 9; Kirby, Cat. Het. p. 175.
Glaucopis packardii, Harris, Am. J. Sci. xxxvi. p. 318 (1839).
Scepsis packardii, Grote, Proc. Ent. Soc. Philad. iv. p. 318 (1865).
Scepsis matthewi, H. Edw. Proc. Calif. Acad. v. p. 184 (1874); Kirby, Cat. Het. p. 175.
Scepsis pallens, H. Edw. Ent. Am. ii. p. 8 (1886).

Head, thorax, and abdomen blue-black; proboscis, 1st joint of palpi, back of head, tegulæ, stripes on shoulders, and throat orange. Fore wing fuscous black or brown with a bluish tinge; the costa and cilia at apex pale. Hind wing hyaline, the veins, costal area, and the terminal area broadly and irregularly bluish fuscous.

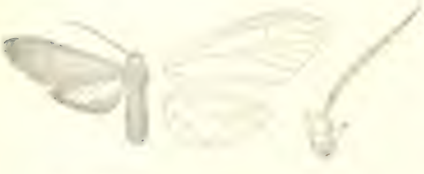

Fig. 275.—*Scepsis fulvicollis*, ♂. ½.

Ab. 1. *pallens.* The markings of head and thorax golden yellow instead of orange.

Ab. 2. *packardi.* The pale yellow extending on head to between antennæ; fore wing pale grey-brown.

Hab. Vancouver, co-types † *matthewi* in Coll. Druce; U.S.A., E. States, Grote Coll., W. States (*Walsingham*). *Exp.* 36 millim.

1149. **Scepsis wrighti.** (Plate XVII. fig. 6.)

Scepsis wrightii, Stretch, Ent. Am. i. p. 101 (1885); Kirby, Cat. Het. p. 175.

Scepsis gravis, H. Edw. Ent. Am. ii. p. 8 (1886); Kirby, Cat. Het. p. 175.

Fuscous black; tegulæ and stripes on shoulders pale yellow; abdomen with a bluish tinge. Fore wing with the costa narrowly pale. Hind wing hyaline, the veins and terminal area broadly and irregularly black.

Ab. 1. *gravis.* Tegulæ orange.

Hab. California, 1 ♂, Grote Coll. *Exp.* 30 millim.

Genus **PROPYRIA**, nov.

Type, *P. ptychoglene.*

Proboscis well developed; palpi downcurved, short; antennæ of male serrate; tibiæ with the spurs moderate. Fore wing with vein 3 from close to angle of cell; 4, 5 strongly stalked; 6 from below upper angle; 7 from 8 beyond 9; 10, 11 from cell. Hind wing with vein 2 from well before angle of cell; 3, 5 strongly stalked; 4 absent; 6, 7 from upper angle, or 7 from before angle.

A.	Tegulæ and thorax crimson	*schausi.*
B.	Tegulæ and thorax black	*ptychoglene.*

*1150. **Propyria schausi.**

Lycomorpha fulgens, Neum. & Dyar, J. N. Y. Ent. Soc. i. p. 103 (1893), nec H. Edw.

Lycomorpha schausi, Dyar, J. N. Y. Ent. Soc. vi. p. 34 (1898).

Head black; tegulæ, patagia, and thorax crimson; abdomen black. Fore wing crimson, the terminal area (one-fifth of wing) black. Hind wing black, with crimson costal fascia extending to beyond middle.

Hab. N. Mexico, Arizona. *Exp.* ? 32 millim. This species is unknown to me.

1151. **Propyria ptychoglene**, n. sp.

Ptychoglene æqualis, Druce, Biol. Centr.-Am., Het. i. p. 129 (nec Wlk.).

Head, thorax, and abdomen black; patagia scarlet. Fore wing scarlet, the terminal area black, extending as a fine fascia on costa to middle and on inner margin to near base. Hind wing black, with the basal two-thirds of costal area scarlet.

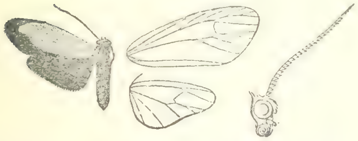

Fig. 276.—*Propyria ptychoglene*, ♂. $\frac{1}{1}$.

Hab. Mexico, Jalapa (*H. Edwards*), Durango (*Forrer*), Coatepec (*Brooks*), Vera Cruz (*Rümeli*), type; Guatemala (*Champion*): Godman-Salvin Coll. *Exp.* 28 millim.

Genus LYCOMORPHA.

	Type.
Lycomorpha, Harris, Amer. Journ. Sci. xxxvi. p. 317 (1839)	*pholus.*
Anatolmis, Pack. Proc. Essex Instit. iv. p. 45 (1864)	*grotei.*

Proboscis well developed; palpi porrect; frons clothed with long hair; antennæ of male biserrate, the shaft dilated at middle; tibiæ with the spurs moderate. Fore wing with the costa arched towards apex, which is rounded; vein 3 from before angle of cell; 4, 5 from angle, rarely stalked; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the termen excised towards tornus; vein 2 from well before angle of cell; 3 from angle; 4 absent; 5 from above angle; 6 from or from below upper angle.

A. Tegulæ and thorax crimson .... *grotei.*
B. Tegulæ and thorax black.
  a. Fore wing crimson, with narrow black border.......... ..... *fulgens.*
  b. Fore wing orange-yellow, with the terminal half black ..... *pholus.*

1152. Lycomorpha grotei.

Anatolmis grotei, Pack. Proc. Essex Inst. iv. p. 47 (1864); Stretch, Zyg. & Bomb. N. Am. p. 44, pl. 2. f. 4 (1872); Kirby, Cat. Het. p. 116.
Lycomorpha palmerii, Pack. Rep. Peab. Acad. iv. p. 84 (1872); Kirby, Cat. Het. p. 116.
Lycomorpha pulchra, Dyar, J. N. Y. Ent. Soc. vi. p. 34 (1898).

Head and abdomen black; tegulæ, patagia, and thorax above crimson. Fore wing crimson, the inner margin usually narrowly black; a terminal rather narrow black band extending as a narrow fascia along costa to two-thirds from base. Hind wing crimson, with terminal black band varying in width and extending nearly to base on inner area.

Ab. 1. *pulchra.* Hind wing with the termen and cilia only black.

Hab. U.S.A., Colorado, 4 ♂, Grote Coll. *Exp.* 30 millim.

One specimen has veins 4, 5 of fore wing stalked. Prof. Dyar writes to me that many of the specimens in the U.S. Museum have veins 3, 5 of hind wing stalked; but possibly they have more than one species under the name. Several species of this and the allied genera, as well as certain *Arctiadæ* and *Zygænidæ*, so closely resemble each other that they are hardly distinguishable except by neuration.

*1153. Lycomorpha fulgens. (Plate XVII. fig. 11.)

Anatolmis fulgens, H. Edw. Papilio, i. p. 116 (1881); Kirby, Cat. Het. p. 116.

Head, thorax, and abdomen blue-black; patagia crimson. Fore wing scarlet tinged with crimson; the terminal area black, extending along costa to three-fourths of wing and on inner margin to before middle. Hind wing black, the costal area crimson to below cell, with irregular oblique outer edge ending on costa before apex.

Hab. New Mexico, Las Vegas, Coll. Schaus; Arizona. *Exp.* 30 millim.

1154. Lycomorpha pholus.

Sphinx pholus, Drury, Ill. Exot. Ins. ii. pl. 28. f. 3 (1773); Kirby, Cat. Het. p. 115.

♂. Black; patagia orange. Fore wing with the basal half orange, its outer edge more or less produced to points on costa and median nervure, and the black running as a fine black line on inner margin nearly to base. Hind wing with the basal area orange, its outer edge running obliquely from middle of costa to base of inner margin.

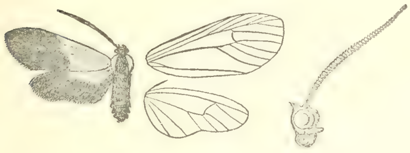

Fig. 277.—*Lycomorpha pholus*, ♂. $\frac{1}{1}$.

Hab. Nova Scotia; U. S. A. *Exp.* 30–34 millim.

Subsp. 1. *miniata*, Pack. Rep. Peab. Acad. iv. p. 84 (1872); Kirby, Cat. Het. p. 116.

Fore wing with the basal area pinkish ochraceous and rather more extensive than in the typical form; hind wing with the base rather redder.

Hab. California.

Larva. Dyar, Psyche, 1897, p. 82.

Eggs laid singly; oblate spheroid, the lower half somewhat flattened; the surface flattened in hexagonal areas; colour dark blue-green.

Larva, stage 1. Head bilobed, black, with deep-black sutures; somites whitish, the hairs barbuled, long and pale, tubercles concolorous, normal; thorax with seta ii. distinct; 1 *a* & *b* and ii. in line. Mature: Grey speckled with pale green, with long blackish hairs; head bilobed, clypeus large, the lower part pale; brown, with two pale green, narrow, transverse irregular lines; hairs short and white; somites rather flattened, grey-brown, with many irregular, triangular, transversely streaked patches; somites 4–10 with more distinct geminate anterior dorsal, rather large pale yellow patches, the others smaller, whitish and indistinct; pro-legs pale, with two setæ on the obscure corneous plates. Feeds on lichens, which it resembles in coloration.

Cocoon a thin web on side of stone.

Pupa pale brown; anal end smooth, with no trace of cremaster; leg and antennal cases united at dehiscence; maxillæ reaching to middle of fore-leg cases; abdomen punctured.

Genus CTENUCHA.

	Type.
Ctenucha, Kirby, Faun. Bor.-Am. iii. p. 305 (1837)...............	*virginica.*
Compsoprium, Blanch. Gay's Hist. Chil., Zool. vii. p. 67 (1852).	*vittigera.*
Caralisa, Wlk. vii. 1660 (1856)	*editha.*
Euctenucha, Grote, Bull. Buff. Soc. i. p. 33 (1873)..................	*multifaria.*

Proboscis fully developed; palpi extending about the length of head, obliquely porrect, the 3rd joint downcurved; antennæ of male bipectinate, with moderate branches; abdomen with slight lateral tubercles at base. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4, 5 from angle, or 3 from just before angle, 5 from just above angle; 6, 7 from upper angle, or 7 from before angle.

A. [illegible] .... [illegible]

B. Fore wing with orange discal patch or band.

a. Fore wing with discal spot in male, postmedial band in female .... [illegible].

b. Fore wing with the orange occupying medial half of wing .... *aymara.*

C. Fore wing with oblique postmedial white band.

a. Fore wing with the band beyond the cell.

a^1. Abdomen with two fine longitudinal white lines on [illegible] .... [illegible]

b^1. Abdomen with transverse segmental bands .... *circe.*

c^1. Abdomen without lines or bands on ventral surface . *palmeira.*

b. Fore wing with the band across end of cell from subcostals to vein 2 .... *semistria.*

D. Wings without crimson or orange patches or postmedial white band.

a. Abdomen with crimson dorsal and ventral patches ...... *editha.*

b. Abdomen without crimson patches.

a^1. Fore wing with prominent whitish, yellow, or scarlet streaks on the veins.

a^2. Fore wing with streak on subcostal nervure ...... *vittigera.*

b^2. Fore wing without streak on subcostal nervure.

a^3. Head whitish or yellow .... *divisa.*

b^3. Head black, usually with the vertex crimson or orange.

a^4. Patagia edged with yellow or orange; fore wing with the veins and costa yellow or orange .... *venosa.*

b^4. Patagia with a few scarlet hairs; fore wing with the veins and costa scarlet .... *sanguinaria.*

b^1. Fore wing without whitish or yellow streaks on the veins.

a^2. Fore wing with the costa white.

a^3. Fore wing with white fascia below median [illegible] .... [illegible]

b^3. Fore wing without white fascia below median nervure.

a^4. Fore wing brown, with the veins black ...... *brunnea.*

b^4. Fore wing blackish .... *multifaria.*

b^2. Fore wing with the costa dark.

a^3. Patagia with crimson stripe .... *rubroscapus.*

b^3. Patagia without crimson stripe.

a^4. Vertex of head orange; fore wing without white patch on termen below vein 2 .... *virginica.*

b^4. Vertex of head dark.

a^5. Fore wing with terminal white patch below vein 2 .... *affinis.*

b^5. Fore wing with white fascia from base through cell .... *claria.*

1155. Ctenucha togata.

Acreagris togata, Druce, Biol. Centr.-Am., Het. i. p. 73, pl. 6. f. 8 (1884); Kirby, Cat. Het. p. 163.
Lycomorpha augusta, H. Edw. Ent. Am. iii. p. 91 (1887); Druce, Biol. Centr.-Am., Het. ii. p. 332, pl. 70. f. 17.

Black shot with blue. Fore wing with deep crimson-red patch occupying the whole wing except the margins, the black broad at apex and indenting the crimson patch; cilia with the tips usually white, often completely white at apex. Hind wing with the cilia usually white at apex; underside with the basal half of costal area crimson.

Hab. Mexico, Guerrero (*H. H. Smith*); Guatemala (*Champion*), 3 ♂, type; Costa Rica (*Rogers*), 2 ♀; Panama (*Champion*), 1 ♂: Godman-Salvin Coll. *Exp.* 34–38 millim.

1156. Ctenucha cyaniris, n. sp. (Plate XVII. fig. 5.)

♂. Head, thorax, and abdomen brilliant metallic blue; palpi and antennæ black; frons and basal joint of antennæ in front white; legs striped with white; abdomen with the ventral surface white to near extremity. Fore wing black, with broad metallic blue fascia below basal part of costa and another on inner area to middle; an oblique orange medial band from subcostal nervure to above vein 1. Hind wing metallic blue, with an orange patch on costa beyond middle; the terminal area black, broad at costa, narrowing to a point at tornus. Underside with bluish white replacing the metallic blue; fore wing with some metallic blue in cell and on disk.

♀. Frons with blue spot; coxæ with hardly any white; abdomen banded blue and white below; fore wing with complete oblique orange band; hind wing with the triangular patch large; underside with hardly a trace of white.

Hab. Ecuador, Topo (*Stewart*), 1 ♂, type. *Exp.* 36 millim.

*1157. Ctenucha aymara.

Gangamela aymara, Schaus, P. Z. S. 1892, p. 285; id. Am. Lep. pl. ii. f. 9.

♂. Black; palpi at base, frons, basal joint of antennæ in front, gulæ, and pectus white; legs striped white and black; metathorax and abdomen shot with blue, the latter with dorsal fascia of orange scales, the ventral surface white. Fore wing with the base and inner area blue; the medial half of wing occupied by an orange patch, which does not reach costa or inner margin but nearly reaches tornus. Hind wing with the basal area shot with blue; a diffused orange patch before apex extending from costa to vein 3. Underside with the basal and inner areas of fore wing white, and the whole hind wing except a black streak in end of cell, an orange fascia on costa, and apical black band.

♀. Without the orange patch on hind wing and without any of the white markings; underside of hind wing with slight subcostal orange streak.

Hab. PERU. *Exp.*, ♂ 28, ♀ 32 millim. Type † in Coll. Schaus.

1158. Ctenucha braganza.

Melanchroia braganza, Schaus, P. Z. S. 1892, p. 288 ; id. Am. Lep. pl. ii. f. 26.

Black; head and thorax mixed with brown; 1st joint of palpi, base of 2nd joint, neck at sides, and sometimes the back of head orange; coxæ and femora striped with white; abdomen tinged with blue, the ventral surface with slight paired white lines; anal tuft sometimes orange. Fore wing with the veins pale fuscous; an oblique white band beyond the cell between veins 7 and 4, or extending to near termen below vein 3; cilia white at apex. Hind wing tinged with blue, the veins fuscous; cilia white.

Hab. BRAZIL, 4 ♂, Theresopolis, 1 ♂, Rio Janeiro, 1 ♂. *Exp.* 48 millim.

1159. Ctenucha circe.

Bombyx circe, Stoll, Pap. Exot. iii. pl. 263. D (1779) & pl. 274. E ; Druce, Biol. Centr.-Am., Het. i. p. 83 ; Kirby, Cat. Het. p. 179.
Eucyra affinis, Boisd. Lép. Guat. p. 88 (1870).

Black-brown; 1st joint of palpi and part of 2nd orange, whitish in front; back of head and neck orange; frons partly whitish; tegulæ with a few orange hairs between them; patagia and thorax with fine pale lines; coxæ and stripes on legs white; abdomen with slight bluish tinge, the extremity orange, the ventral surface with segmental bands and more or less whitish between them. Fore wing with the veins pale fuscous; an oblique white band beyond the cell from vein 7 to near termen at vein 2, sometimes obsolescent below vein 3; cilia white at tips towards tornus. Hind wing blue-black, the cilia white. Underside sometimes with white fasciæ below cell of fore wing and in cell of hind wing.

Hab. NICARAGUA; ECUADOR; VENEZUELA, 3 ♂; BRAZIL, 1 ♀; Para, 1 ♂. *Exp.* 34–42 millim.

*1160. Ctenucha palmeira.

Melanchroia palmeira, Schaus, P. Z. S. 1892, p. 288 ; id. Am. Lep. pl. ii. f. 24.

♀. Head and thorax brownish black; neck with some orange scales; base of palpi and front of pectus orange; abdomen fuscous, the anal tuft tipped with orange. Fore wing dull black, the veins rather paler; a wedge-shaped white band beyond the cell from vein 7 to below 4. Hind wing blue-black; an apical white patch; underside with short white streak on discoidal fold beyond the cell.

Hab. BRAZIL, Rio Janeiro, Palmeira. *Exp.* 40 millim. Type † in Coll. Schaus.

1161. **Ctenucha semistria.** (Plate XVII. fig. 4.)

Dioptis semistria, Wlk. ii. 321 (1856); Kirby, Cat. Het. p. 180.

♀. Blue-black; 1st joint of palpi and part of 2nd joint, head behind eyes, and throat orange. Fore wing with oblique white band across end of cell terminating on vein 2. Hind wing with small white patch below end of cell between veins 2 and 3; the cilia white. Underside of fore wing with streak of diffused white below the cell.

Hab. Brazil, 1 ♀, type. *Exp.* 42 millim.

1162. **Ctenucha editha.** (Plate XVII. fig. 10.)

Caralisa editha, Wlk. vii. 1661 (1856).

♂. Black; head, thorax, abdomen, and wings in interspaces to beyond middle shot with brilliant blue; base of palpi and pectus scarlet; abdomen with scarlet dorsal patch from 2nd to 5th segments, conjoined on sides at middle to the ventral scarlet area; both wings with the cilia white at tips; underside of fore wing with terminal wedge-shaped white patch below vein 2.

Hab. Haiti, 1 ♂. *Exp.* 38 millim. Type † in Mus. Oxon.

1163. **Ctenucha vittigera.**

Compsoprium vittigerum, Blanch. in Gay's Chile, Zool. vii. p. 67 (1852); Kirby, Cat. Het. p. 177.
Ctenucha nivosa, Wlk. Char. Lep. Het. p. 6 (1869); Kirby, Cat. Het. p. 177.

Head orange; palpi whitish and orange, 2nd joint behind and 3rd joint black; frons whitish and blue; antennæ black; thorax olive-black mixed with white; tegulæ and patagia edged with orange and white; legs striped with white; abdomen with slight segmental white rings. Fore wing fuscous; the veins and submedian interspace broadly striped with white, the costa and tips of cilia white. Hind wing blue-black; cilia white.

Ab. 1. Fore wing with the stripes on veins very broad and leaving little of the fuscous ground-colour.

Ab. 2. *nivosa.* Hind wing with the median nervules and submedian interspace finely streaked with white.

Hab. Chili (*Mathew*, *J. J. Walker*); Argentina (*Berg*), and type *nivosa*. *Exp.* 46 millim.

1164. **Ctenucha divisa.** (Plate XVII. fig. 25.)

Compsoprium devisum, Wlk. vii. 1644 (1856); Kirby, Cat. Het. p. 176.
Philoros marita, Schaus, J. N. Y. Ent. Soc. iv. p. 133 (1896).

Head white; 2nd and 3rd joints of palpi and antennæ black; back of head and neck yellow; thorax pale yellow-brown; tegulæ and patagia edged with white; legs striped with white; abdomen black tinged with blue. Fore wing pale yellow-brown, the median nervure and veins 1 to 7 streaked with white; cilia white at tips; abdomen blue-black, the cilia white.

Hab. Brazil, São Paulo (*Jones*); Argentina (*Berg*). *Exp.* 34-42 millim. Type ♀ in Mus. Oxon.

1165. Ctenucha venosa.

Ctenucha venosa, Wlk. ii. 284 (1854); Stretch, Zyg. & Bomb. N. Am. p. 31, pl. 1. f. 12; Druce, Biol. Centr.-Am., Het. i. p. 82; Kirby, Cat. Het. p. 176.
Ctenucha cressonana, Grote, Proc. Ent. Soc. Phil. ii. p. 64, pl. 8. f. 5 (1863); Kirby, Cat. Het. p. 177.

Head, thorax, and abdomen black shot with blue; palpi yellow and red at base; vertex of head and neck scarlet, sometimes orange; patagia edged with white or orange. Fore wing greyish or brownish black, blue at base, with fine or rather broad stripes on vein 1, median nervure, and veins 4, 5, 6, which may be orange-red, yellow, or almost white; costa white, yellow towards base. Hind wing black shot with blue; cilia of both wings white except at middle.

Hab. U. S. A., Texas, Grote and Zeller Colls.; Mexico (*Morrison, Forrer, Godman, Brooks, Elwes, Smith, Richardson, Schumann*); Guatemala (*Rodriguez, Rogers*); Costa Rica (*Underwood*); Panama (*Champion*): Godman-Salvin Coll.; Venezuela. *Exp.* 38 millim.

Subsp. 1. Vertex of head black; neck and base of palpi scarlet or yellowish.—Ecuador (*Buckley*), 1 ♂.

•1166. Ctenucha sanguinaria.

Ctenucha sanguinaria, Stretch, Rep. Chief of Engineers, 1878, App. SS. p. 1858, pl. 2. fig. 2; Kirby, Cat. Het. p. 177.

Head and thorax black; 1st joint of palpi, some hairs of 2nd joint, vertex of head, stripes on shoulders, and neck scarlet; patagia blue, with black and a few scarlet hairs; metathorax blue; pale points at end of tibiæ and femora; abdomen deep blue. Fore wing black with some blue at base; the costa, median nervure, veins 4, 3, 1 to near termen scarlet. Hind wing deep blue; cilia of both wings white. Underside shot with blue; fore wing with pale patch below base of median nervure.

Hab. U. S. A., Western States. *Exp.* 52 millim.

1167. Ctenucha ruficeps.

Ctenucha ruficeps, Wlk. ii. 284 (1854); Druce, Biol. Centr.-Am., Het. i. p. 82, pl. 9. f. 8; Kirby, Cat. Het. p. 178.

♂. Black-brown; frons, thorax, and abdomen suffused with metallic green; vertex of head and neck crimson; fore coxæ and stripes on legs white. Fore wing with the base blue-green; a white fascia below median nervure almost confluent with spots above and below vein 2; the costa and cilia white. Hind wing with white patch below the base of cell; cilia white at apex.

Hab. MEXICO, 1 ♂ type. *Exp.* 38 millim.

1168. Ctenucha brunnea.

Ctenucha brunnea, Stretch, Zyg. & Bomb. N. Am. p. 30, pl. i. f. 11 (1872); Kirby, Cat. Het. p. 177.

♂. Head, thorax, and abdomen black shot with deep blue; 1st and 2nd joints of palpi, neck, shoulders, and stripes on patagia crimson; coxæ and stripes on legs white. Fore wing pale brown, the veins black; a blue spot at base; the costa and tips of cilia white. Hind wing black shot with blue; cilia white at tips.

Hab. CALIFORNIA, 3 ♂. *Exp.* 42 millim.

1169. Ctenucha multifaria.

Apistosia multifaria, Wlk. ii. 479 (1854); Stretch, Zyg. & Bomb. N. Am. p. 28, pl. i. f. 12; Kirby, Cat. Het. p. 177.

Ctenucha multifaria, var. *luteoscapus*, Neum. & Dyar, J. N. Y. Ent. Soc. i. p. 106 (1893).

Head, shoulders, spots on tegulæ, and stripes on patagia orange, usually tinged with crimson; 3rd joint of palpi and antennæ black; thorax and abdomen deep metallic blue; femora with white spots at extremity. Fore wing olive-black, bluish at base; costa and cilia white. Hind wing black shot with blue; cilia white.

Hab. CALIFORNIA, type (*Stretch, Grote, Walsingham*). *Exp.* 46–50 millim.

1170. Ctenucha rubroscapus.

Glaucopis rubroscapus, Ménétr. Cat. Lép. Pét. ii. p. 142, pl. 14. f. 7 (1857); Kirby, Cat. Het. p. 177.

Ctenucha ochroscapus, Grote & Rob. Trans. Am. Ent. Soc. i. p. 330 (1868); Stretch, Zyg. & Bomb. N. Am. p. 29, pl. i. f. 13; Kirby, Cat. Het. p. 177.

Ctenucha corvina, Boisd. Ann. Soc. Ent. Belge, xii. p. 71 (1869).

Ctenucha walsinghamii, H. Edw. Proc. Calif. Acad. v. p. 112 (1873); Stretch, Zyg. & Bomb. N. Am. p. 213, pl. 9. f. 1.

Head, neck, shoulders, and a stripe on patagia crimson; 3rd joint of palpi and antennæ black; thorax and abdomen black shot with blue; fore coxæ, a stripe on fore femora, and spots at extremity of mid and hind femora white. Fore wing fuscous black, bluish at base. Hind wing fuscous black shot with blue; cilia of both wings white at apex.

Ab. 1. *ochroscapus*. Head, neck, shoulders, and a stripe on patagia orange-yellow.

Hab. U. S. A., Western States (*Grote, H. Edwards*). *Exp.* 48 millim.

1171. Ctenucha virginica.

Sphinx virginica, Charp. in Esper's Exot. Schmett., ii. Suppl. pl. 2. ff. 3, 4 (1830); Stretch, Zyg. & Bomb. N. Am. i. p. 25, pl. i. f. 15; Kirby, Cat. Het. p. 176.
Ctenucha latreilliana, Kirby, Faun. Bor.-Am. iii. p. 305 (1837).

Dark fuscous-brown; head, thorax, and abdomen suffused with blue; base of palpi, vertex of head, neck, shoulders, and base of patagia orange-yellow. Fore wing shot with blue at base. Hind wing blackish slightly shot with blue. Cilia of both wings white at apex and towards tornus.

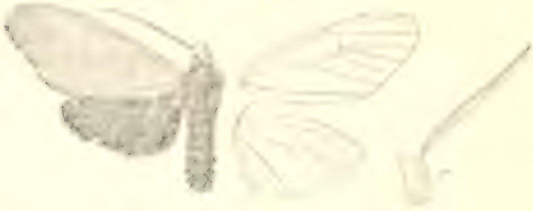

Fig. 278.—*Ctenucha virginica*, ♂. $\frac{1}{1}$.

Hab. Canada (*Barnston*); Nova Scotia (*Redman*); U. S. A., Grote Coll., Zeller Coll. *Exp.* 48–54 millim.

Larva, Pack. Proc. Essex Inst. iv. no. 1, and Ann. N.Y. Acad. viii. p. 83.

Egg. Hemispherical; under microscope seen to be divided into polygonal areas; deep yellow in colour.

Larva (adult, 18 millim.). Head light chestnut-red, blackish in front; body densely hairy and completely concealed when at rest by the hair, which is of even length; the hair overhanging head and on sides black mixed with white; the verticils on 1st and 2nd somites white; the dorsal hair bright yellow; a series of nine double dorsal medial tufts; the 1st pair slightly longer and directed forwards, the last pair backwards; a broad irregular brown, somewhat scalloped, white subdorsal line; the infra-spiracular line narrow, wavy, and snow-white. *Food-plant*, Grasses.

1172. Ctenucha affinis.

Ctenucha affinis, Druce, Biol. Centr.-Am., Het. i. p. 83 (1884); id. ii. pl. 73. f. 3.

Head, thorax, and fore wing olive-black with a bluish tinge; 1st two joints of palpi, neck, and throat orange; abdomen black shot with blue. Fore wing with the cilia white at apex; a wedge-shaped white patch on terminal area below vein 2. Hind wing black shot with brilliant blue; cilia white at tips.

Hab. Guatemala (*Champion*), 2 ♂, 2 ♀, type, Godman-Salvin Coll. *Exp.* 34 millim.

*1173. **Ctenucha clavia.** (Plate XVII. fig. 27.)

Hoplarctia clavia, Druce, P. Z. S. 1883, p. 383; Kirby, Cat. Het. p. 270.

♂. Head, thorax, and abdomen metallic blue-green, clothed with long sparse black hair. Fore wing dull black, with yellowish-white fascia from base through the cell to termen; a narrow fascia on inner margin not reaching base; cilia white from vein 3 to tornus. Hind wing yellowish white, the inner and terminal areas fuscous, the latter expanding to lower angle of cell; cilia whitish between veins 3 and 1.

Hab. Ecuador. Type in Coll. Druce. *Exp.* 40 millim.

Genus **DAHANA**.

	Type.
Dahana, Grote, Can. Ent. vii. p. 175 (1875)	*atripennis.*

Proboscis fully developed; palpi porrect, downcurved, extending about the length of head; antennæ bipectinate, with long branches; tibiæ with the spurs moderate; abdomen of male with lateral tubercles on 1st segment, open below. Fore wing long and rather narrow; vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell very long; vein 3 from towards angle; 4, 5 from angle; 7 from before upper angle; both wings with the termen excised above tornus.

1174. **Dahana atripennis.**

Dahana atripennis, Grote, Can. Ent. vii. p. 175 (1875); Kirby, Cat. Het. p. 123.

Head and thorax black-brown, shot with metallic blue; the base of palpi, vertex of head, and behind the eyes orange; patagia edged with orange in front; abdomen orange, with large lateral metallic blue patches; the ventral surface black. Fore wing black-brown slightly suffused with ferruginous; an ochreous streak below vein 2 towards termen. Hind wing black, shot with brilliant metallic blue.

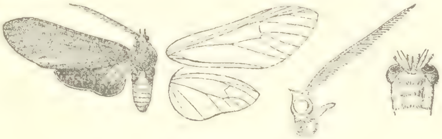

Fig. 279.—*Dahana atripennis*, ♂. $\frac{1}{1}$.

Hab. Florida, 1 ♂, 2 ♀, Grote Coll., type. *Exp.* 42 millim.

Genus **EPECTAPTERA**, nov.

Type, *E. laudabilis.*

Proboscis fully developed; palpi porrect, extending about the length of head; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs minute. Fore wing with the apex produced and the outer margin very oblique; vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4 from angle; 5 from well above angle; 6, 7 from upper angle.

A. Fore wing with discoidal orange spot .... *discosticta.*
B. Fore wing without discoidal orange spot .... *laudabilis.*

1175. **Epectaptera discosticta**, n. sp. (Plate XVII. fig. 24.)

Head, thorax, and abdomen black, the two former largely suffused with brilliant blue and the last with segmental lines; fore legs brownish on inner side. Fore wing with orange fascia below basal part of cell and discoidal quadrate spot. Hind wing with large orange patch in, below, and beyond end of cell extending to costa. Underside of fore wing with the orange fascia conjoined to the discoidal spot; hind wing orange, with black fascia on basal part of costa and terminal band, its inner edge angled at vein 4.

Hab. Venezuela, Merida (*Hahnel*), 1 ♂ type, ♀ in Coll. Staudinger. *Exp.*, ♂ 40, ♀ 42 millim.

1176. **Epectaptera laudabilis.**

Aclytia laudabilis, Druce, **A. M. N. H.** (6) xviii. p. 35 (1896).

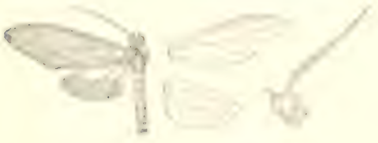

Fig. 280.—*Epectaptera laudabilis*, ♂. 1/1.

Head, thorax, and abdomen black; frons, vertex of head, cheeks, tegulæ, patagia, thorax, and legs with patches of metallic blue; femora, tibiæ, and tarsi streaked with yellow; abdomen with segmental blue lines, the ventral surface blue. Fore wing golden brown suffused with fuscous, the veins black; a blue point below base of costa and a round yellow spot below base of cell. Hind wing with the basal area yellow, the median nervure black; the terminal half brownish black with the veins black, its inner edge bent inwards below vein 5. Underside of fore wing with the basal half yellow; the costa and base of cell fuscous; hind wing with fuscous patch at base of costa; both wings with some blue at base of costa.

Hab. Bolivia (*Garlepp*), 1 ♂, 1 ♀. *Exp.* 34 millim. Type † in Coll. Druce.

Genus **PHILOROS.**

Type

Philoros, Wlk. ii. 283 (1854) .... *rubriceps.*

Proboscis fully developed; palpi obliquely upturned, the 3rd joint porrect, the 2nd joint with tuft of hair on upperside at extremity; antennæ bipectinate, with moderate branches; female with the shaft somewhat dilated at middle; tibiæ with the spurs moderate; abdomen with lateral tubercles on basal segments. Fore wing rather narrow; vein 2 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3, 4, 5 from close to angle; 6, 7 from upper angle.

A. Hind wing with white patches at apex and tornus; anal tuft crimson .... *laura.*
B. Hind wing without white patches; anal tuft black.
  a. Fore wing dark fuscous brown .... *rubriceps.*
  b. Fore wing pale brown, the veins blackish .... *neglecta.*

1177. **Philoros laura**, n. sp. (Plate XVII. fig. 23.)

Dull black; palpi at base, back of head, neck, and anal tuft crimson; palpi in front, frons, coxæ, and stripes on legs white; abdomen tinged with blue and with white ventral stripe. Fore wing with slight yellowish streak on inner margin; the cilia tipped with white except at middle. Hind wing shot with blue; an apical white patch; the termen and inner margin white towards tornus.

Hab. Bolivia, Bueyes (*Garlepp*), 2 ♂, type; ♀ in Coll. Staudinger. *Exp.* 38 millim.

1178. **Philoros rubriceps.**

Ctenucha rubriceps, Wlk. ii. 283 (1854); Druce, Biol. Centr.-Am., Het. i. p. 82, pl. 9. f. 8; Kirby, Cat. Het. p. 176.
Ctenucha opaca, Boisd. Lép. Guat. p. 84 (1870); Kirby, Cat. Het. p. 176.
Ctenucha scepsiformis, H. Edw. Ent. Am. iii. p. 91 (1887).

Head and thorax fuscous brown; 1st and 2nd joints of palpi, throat, and vertex of head scarlet; frons and abdomen shot with blue. Fore wing fuscous brown; the veins darker. Hind wing shot with blue; cilia of both wings often white at tips, or towards tornus only.

Ab. 1. *opaca*. Palpi, throat, and vertex of head fulvous orange.—Mexico, Guatemala, Brazil, Uruguay.

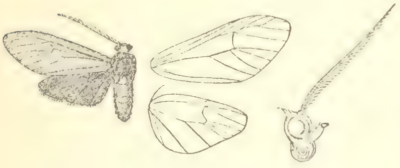

Fig. 281.—*Philoros rubriceps*, ♂. $\frac{1}{1}$.

Hab. Mexico (*H. Edwards*), 1 ♀, Jalapa (*Trujillo*, *Hoege*), Orizaba (*Godman*, *Elwes*), Vera Cruz (*H. H. Smith*), Coatepec (*Brooks*); Guatemala (*Champion*); Costa Rica (*Underwood*): Godman-Salvin Coll.; Colombia; Venezuela, type; Brazil, São Paulo (*Jones*), Rio Janeiro; Uruguay (*Berg*). *Exp.* 30–34 millim.

1179. **Philoros neglecta.**

Tipulodes neglecta, Boisd. Voy. Astr., Lép. p. 195, pl. 3. f. 8 (1832); Burm. Descr. Rep. Arg. v. p. 383; Kirby, Cat. Het. p. 176.

Head and thorax brown and fuscous; 1st and 2nd joints of palpi, throat, and vertex of head orange; abdomen black, shot with blue above. Fore wing pale brown, sometimes whitish, the veins black-brown; cilia often whitish at tips, especially towards tornus. Hind wing semihyaline fuscous tinged with blue; cilia whitish at apex and below middle.

Hab. Peru, Arica, Callao (*J. J. Walker*). *Exp.* 36–40 millim.

Genus **HYALEUCEREA.**

Type.
Hyaleucerea, Butl. A. M. N. H. (4) xv. p. 399 (1875) .... *erythrotelus.*

Proboscis fully developed; palpi upturned, reaching vertex of head; antennæ bipectinate, with moderate branches; tibiæ with the spurs moderate; abdomen dorsally clothed with rough hair at base. Fore wing long and narrow, the apex somewhat acuminate; vein 3 from near angle of cell; 4, 5 from angle or separate; 6 from or from just below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the cell long; vein 2 from long before angle; 3 from near angle of cell; 4, 5 from angle or separate; 6, 7 from upper angle.

Sect. I. Fore wing with vein 2 straight.

A. Hind wing with vein 8 present as a short spur.

a. Hind wing of male with the costa lobed at base, the subcostal nervure with long downwardly-directed hairs arising from it at intervals.

1180. Hyaleucerea vulnerata.

Hyaleucerea vulnerata, Butl. A. M. N. H. (4) xv. p. 399 (1875); Druce, Biol. Centr.-Am., Het. ii. p. 365, pl. 73. f. 16; Kirby, Cat. Het. p. 203.

♂. Head, thorax, and abdomen black; base of palpi, sides of tegulæ, shoulders, and patagia with white spots; coxæ white; white marks on end of femora and base of tibiæ; the terminal spurs and 1st joints of tarsi white; abdomen with crimson point at base and segmental bands on terminal half, the ventral surface with paired white patches except towards extremity. Fore wing brown, with white marks at base followed by some black markings; hyaline patches in base and end of cell separated by a black bar extending up to costa; a hyaline streak below cell and patch above vein 2; hyaline patches in interspaces above veins 3, 4, 5, 6, the two lower longest; the inner area with antemedial and medial black lines; the discocellulars and hyaline patches defined by black markings; a small angled pale mark on a black patch near tornus; a white apical spot on a black patch and with a streak below it. Hind wing hyaline, the veins and an irregular terminal band black.

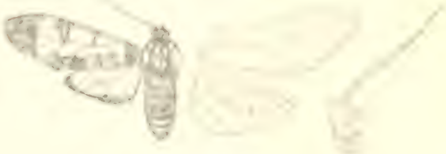

Fig. 282. *Hyaleucerea vulnerata*, ♂. 1/1.

♀. Abdomen with the segmental crimson bands extending nearer the base; fore wing with black-edged brown spot below angle of cell, bisecting the hyaline patch above vein 2.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀, Godman-Salvin Coll.; Brazil, Espiritu Santo, 1 ♂ type. *Exp.*, ♂ 40, ♀ 46 millim.

b. Hind wing of male with the tornus produced to a pointed lobe, the inner area with a fold containing a tuft of hair.

*1181. Hyaleucerea luctuosa.

Heliura luctuosa, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 642, pl. 8. f. 13 (1877); Kirby, Cat. Het. p. 165.

♂. Fuscous suffused with dull blue-green; head, thorax, and legs with some brighter metallic blue and green; abdomen with lateral and sublateral series of metallic-green spots. Hind wing with hyaline patch in, below, and beyond cell extending almost to termen.

Hab. SURINAM, 1 ♂ type † in Coll. Staudinger. *Exp.* 40 millim.

c. Hind wing of male normal.

1182. Hyaleucerea erythrotelus.

Glaucopis erythrotelus, Wlk. i. 147 (1854); Kirby, Cat. Het. p. 203.

♂. Black; neck crimson; coxæ white; abdomen with the extremity crimson. Fore wing with hyaline patches in and below cell and above base of vein 2; small spots above and below vein 6. Hind wing hyaline; the veins and an irregular terminal band expanding towards apex and below vein 2 black.

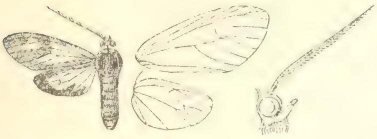

Fig. 283.—*Hyaleucerea erythrotelus*, ♂. $\frac{1}{1}$.

Hab. AMAZONS, Para, 1 ♂ type. *Exp.* 30 millim.

B. Hind wing with vein 8 absent.

1183. Hyaleucerea fusiformis.

Pampa fusiformis, Wlk. vii. 1629 (1856); Kirby, Cat. Het. p. 158.
Scepsis trifasciata, Butl. Ill. Het. i. p. 49, pl. 16. f. 11 (1877); Kirby, Cat. Het. p. 175.

Fuscous black; palpi whitish in front; back of head, tegulæ, and neck at sides with crimson points; sides of frons and shoulders with white points; pectus, fore coxæ, and mid and hind femora with white patches; abdomen with sublateral series of white spots. Fore wing with pale streaks in the interspaces, leaving the veins, margins, and diffused patches at apex and tornus fuscous. Hind wing hyaline; the veins and terminal area fuscous.

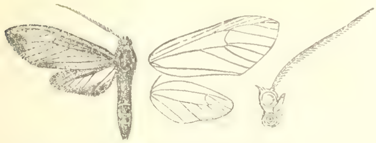

Fig. 284.—*Hyaleucerea fusiformis*, ♂. $\frac{1}{1}$.

Hab. AMAZONS, R. Purus and Solimoës (*Trail*), 2 ♂, type *trifasciata*. *Exp.* 34 millim. Type † in Mus. Oxon.

SECT. II. Fore wing with vein 2 much curved at origin.

1184. Hyaleucerea gigantea.

Epanycles gigantea, Druce, Biol. Centr.-Am., Het. i. p. 80, pl. 9. f. 7 (1884); Kirby, Cat. Het. p. 173.

Head and thorax brown, speckled with white; neck orange;

coxæ whitish; legs streaked and speckled with white; abdomen orange above; the dorsal patch of hair at base and terminal segment brown; the ventral surface white to near extremity. Fore wing brown, with fine irregular antemedial line formed by white scales and with some streaks on its inner side; a dark brown mark on middle of costa composed of two triangular patches; the veins at and beyond end of cell streaked with dark brown and with streaks above veins 6 and 5; the postmedial line very ill-defined formed by bluish-white scales acutely dentate below costa, bent outwards between veins 7 and 5, curved to vein 2, then retracted to below middle of cell and angled above vein 1, and with diffused white scales and streaks before and beyond it; a series of double white terminal points. Hind wing white, the veins and terminal area usually broadly and irregularly suffused with fuscous.

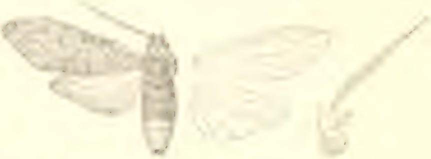

Fig. 285.—*Hyaleucerea gigantea*, ♂. ½.

Hab. Guatemala; Panama (*Champion*). type, 4 ♂, 5 ♀, Godman-Salvin Coll. *Exp.* 40 millim.

List of unrecognized Species.

Agyrta lucida, Wlk. xxxi. 147; Kirby, Cat. Het. p. 121. Type lost.

Carales minuscula, Wlk. xxxi. 306; Kirby, Cat. Het. p. 199. Type lost.

Eucerea melanopyga, Wlk. Char. Lep. Het. p. 4; Kirby, Cat. Het. p. 201. Type lost.

Eunomia dubia, Feld. Wien. Ent. Mon. vi. p. 231 (1862); Kirby, Cat. Het. p. 151. Description insufficient.

.. *separata*, Wlk. vii. 1618; Kirby, Cat. Het. p. 151. Type lost.

Glaucopis amphitrite, Lucas, Sagra's Hist. Cuba, Ins. p. 659 (1857); Kirby, Cat. Het. p. 166. Description insufficient.

.. *lateralis*, Guér. Icon. R. Anim., Ins. p. 503 (1844); Kirby, Cat. Het. p. 174. Description insufficient.

.. *leucostalacta*, Burm. Descr. Rep. Arg., Atlas, i. p. 59 (1880); Kirby, Cat. Het. p. 142. Description insufficient.

.. *myrrhine*, Burm. Descr. Rep. Arg. v. p. 375, Atlas, pl. xvi. f. 6; Kirby, Cat. Het. p. 142. Description insufficient. ? *Agyrta*.

Glaucopis thomæ, Lucas, Sagra's Hist. Cuba, Ins. p. 660 (1857); Kirby, Cat. Het. p. 174. Description insufficient.

Lagaria circumdata, Wlk. xxxi. 88; Kirby, Cat. Het. p. 142. Type lost.

Myrsilla auripennis, Boisd. Lép. Het. i. p. 433 (1874); Kirby, Cat. Het. p. 173. Description insufficient.

Phaio longipennis, Neum. Can. Ent. 1894, p. 335. Description insufficient.

Syntomis bogotata, Wlk. xxxi. 63; Kirby, Cat. Het. p. 132. Type lost.

Trichæa pilicornis, Herr.-Schäff. Corresp.-Blatt Regensb. xx. p. 115 (1866); Kirby, Cat. Het. p. 131. Description insufficient.

,, *seticornis*, Herr.-Schäff. Corresp.-Blatt Regensb. xx. p. 115 (1866); Kirby, Cat. Het. p. 131. Description insufficient.

Zygæna aurulenta, Weber, Obs. Ent. p. 110 (1801); Kirby, Cat. Het. p. 160. Description insufficient.

,, *cyanea*, Gmel. Syst. Nat. i. (5) p. 2400 (1788); Kirby, Cat. Het. p. 126. Description insufficient.

,, *melissa*, Fabr. Syst. Ent. p. 553 (1775); Kirby, Cat. Het. p. 151. Description insufficient. ? *Bombiliodes*.

,, *myrtea*, Fabr. Spec. Ins. ii. p. 161 (1781); Kirby, Cat. Het. p. 147. Description insufficient.

ADDENDA, *Sept.* 12*th*, 1898.

Page 40. **Ceryx evar**, insert (syn.). *Syntomis gracilis* var. *lugens*, Röber, Tijd. v. Ent. xxxiv. p. 323 (1891). Type † in Coll. Röber.

,, 64. **Syntomis actea**, subsp. 1 = *Syntomis swinhoei*, Leech, Entom. xxxi. p. 152 (1898).

,, 81. **Syntomis trifenestrata** belongs to the Section *Hydrusa*, and will come next to **S. graduata**. Type † ♂ in Coll. Röber.

,, 85. **Syntomis celebesa**, del. *Syntomis gracilis* var. *lugens*.

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[Synonyms are printed in *italics*.]

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